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ABSTRACT

This document is a summary and evaluation of the methodological procedures and results of the full-scale implementation of the Beginning Postsecondary Student Longitudinal Study, 1990-92 (BPS). The BPS starts with a cohort of students beginning postsecondary education regardless of when they completed high school. As a result, information will be available about nontraditional students who have delayed their postsecondary education. Many educational policy questions can be addressed through information gathered by the BPS about student characteristics and patterns of information. An introductory chapter provides a summary of the background, major procedures and results, and scheduled products of the survey. Other sections cover the design and method, data collection and results, data analysis, nonresponse weighting, and data file construction. Eight appendixes provide technical information about survey conduct. Six figures and 57 tables present some survey findings and details about the methodology. (SLD)

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Technical Report

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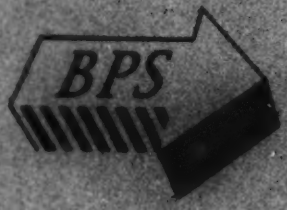
Contractor Report



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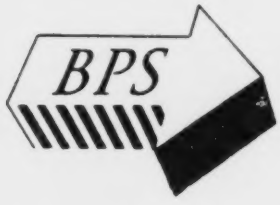

G. J. Burkheimer, Jr.
B. H. Forsyth
R. W. Whitmore
J. S. Wine
K. M. Blackwell
Research Triangle Institute

K. J. Veith
G. D. Borman
ABT Associates, Inc.

Paula R. Knepper
Project Officer
National Center for Education Statistics

U.S. Department of Education
Office of Educational Research and Improvement **NCES 94-369**

U.S. Department of Education
Richard W. Riley
Secretary

Office of Educational Research and Improvement
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Contact:
Paula R. Knepper
(202) 219–1914

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TABLE OF CONTENTS

Page

Acknowledgements ix

I. INTRODUCTION, BACKGROUND, AND PURPOSE

A. Nature of The Document and Study Summary 1
B. Background and Purposes of BPS 2
C. Scheduled Additional Products of BPS:90/92 3

II. SUMMARY OF DESIGN AND METHOD OF THE FULL-SCALE STUDY

A. The BPS:90/92 Sample 5
B. Basic Design 9
C. Operational and Information Control 13
D. Evaluation Design 17

III. DATA COLLECTION ACTIVITIES AND RESULTS

A. Preparatory Activities 19
1. Preliminary File Work 19
2. Training 21
B. CATI-External Tracing and Mailings 21
1. National Change of Address Lookup 22
2. Parent/Other Mailing 24
3. Student Mailing 26
4. Productivity of Pre-CATI Tracing Efforts 26
5. Institutional Mailings 28
6. Intensive Tracing 29
7. Efficiency of All CATI-External Tracing Activities 36
C. CTI Set-up and Basic Operations 38
1. Set-up Procedures 38
2. Overview of Interview System and Operations 40
3. Non-FTB Determination 41
4. Overall CATI Locating and Response Rates 47
a. Locating/Contacting Results 47
b. Interviewing Results 51
c. Overall Response to Main Interview 53
d. Response to Reliability Reinterview 55
e. Response Burden and Effort Expended 55
5. On-line Coding Operations 61
D. Suggestions for Subsequent Surveys 71

TABLE OF CONTENTS (continued)

Page

IV. POST-CATI DATA EXAMINATION

A. Indeterminate Response and Up-Coding 75
1. Indeterminate Responses 75
2. Up-coding "Other, Specify" Items 79
B. Reliability of Base Year Data 82
C. Reliability Reinterviews 83
1. Enrollment at the NPSAS School 84
2. Enrollment at Other Schools 86
3. Information About Terms Since February 1990 86
4. Education Services at the NPSAS School 88
5. Factors Related to Education Financing 90
6. Work Experience 92
D. Validation of Individual Responses through Institutional Data 93
E. Order Effects 97

V. NON-RESPONSE WEIGHTING AND DATA FILE CONSTRUCTION

A. Data File Construction Summary 105
B. Weighting and Nonresponse/Ineligibility Adjustments 106
1. Weight Adjustment Cell Determination 107
2. Nonresponse and Eligibility Adjustment Procedures 114
3. Adjustment for Eligibles in the Excluded Groups 115

Appendix A Student, Parent, and Other Prenotification and Tracing Materials A.1
Appendix B Institutional Forms and Associated Correspondence B.1
Appendix C BPS:90/92 Facsimile Questionnaires C.1
Appendix D BPS:90/92 Remail Cover Letters D.1
Appendix E BPS:90/92 Technical Review Panel Membership E.1
Appendix F List of Disposition Codes used in the ICS Module F.1
Appendix G Supplemental Analytic Results G.1
Appendix H On-Line Coding Materials H.1

LIST OF TABLES

Page

Table II.1 Composition of the NPSAS:90 and Potential BPS:90/92 Full-Scale Institution and Student Samples, by Type of NPSAS Institution 6

Table II.2 BPS:90/92 Potential Student Sample by NPSAS:90 School Type and Pre-CATI FTB Classification 11

Table II.3 BPS:90/92 Full-Scale Evaluation Summary 18

Table III.1 NCPA Supplied Telephone Information 23

Table III.2 Results of the NCOA Student Telephone Number Validation 24

Table III.3 Results of Parent/Other Student Mailings 25

Table III.4 Results of Parent/Other and Student NCOA Address Updates and Results of Mailings to Updated Addresses Within These Groups 25

Table III.5 CATI Contact Number by Phone Type and Source 27

Table III.6 Provision by Three Sources, of *Any* Phone Number Leading to CATI Contact that Was Not Redundant with a NPSAS:90 Number 28

Table III.7 Institution-Level Response for Student Enrollment Status Update 30

Table III.8 Student-Level Response Rates for Enrollment Status Updates and Institution-Reported Status 30

Table III.9 Intensive Tracing Steps and Final Student-Level Outcomes 32

Table III.10 Intensive Trace Activation and Resolution Rates by Level and Control of NPSAS:90 School 34

Table III.11 Intensive Trace Activation and CATI Resolution Outcomes by Current Enrollment Status 35

Table III.12 Unique Contributions to CATI Contact from Specified Sources 36

Table III.13 Relative Contribution of BPS:90/92 Tracing Activities by Order of Implementation 37

LIST OF TABLES (continued)

Page

Table III.14 Total and Unit Variable Costs for Unique Contact Numbers for Each BPS:90/92 CATI-External Tracing Activity 38

Table III.15 Final Estimates of FTB Rates in Test Samples from Three BPS:90/92 Suspect Groups 43

Table III.16 Weighted and Unweighted FTB Rates in the Five Distinct Pre-CATI Classification Groups Comprising the CATI Sample 44

Table III.17 Results *Post Hoc* Non-FTB Modelling Procedures 45

Table III.18 Identified and Modelled Non-FTB Rates by NPSAS:90 Institution Type . . 46

Table III.19 Contacting Rates by NPSAS:90 School Type 49

Table III.20 Sample Member Contact Rates by Institutionally Reported Enrollment Status in 1992 Academic Year 50

Table III.21 Interviewing Rates by Type of NPSAS:90 Institution 53

Table III.22 Distribution of Final Break-Offs (Partial Interviews), by Section 54

Table III.23 Actual and Estimated Time to Administer the BPS:90/94 Interview 56

Table III.24 Average Elapsed Minutes to Complete Overall Full-Scale Interview by Level and Control 57

Table III.25 Numbers of Calls Made to All BPS:90/92 Sample Members by Level and Control of NPSAS:90 School 60

Table III.26 Results of On-Line IPEDS Coding by Time Period 63

Table III.27 Results of On-Line Field of Study Coding by Time Period 65

Table III.28 Results of On-Line Industry Coding in Section D, by Time Period 67

Table III.29 Results of On-Line Occupational Coding in Section D, by Time Period . . . 68

Table III.30 Results of On-Line Occupational Coding in Section G and H by Time Period 70

LIST OF TABLES (continued)

Page

Table IV.1 Summary of Indeterminate Responses to Questions by Interview Section . . 77

Table IV.2 Combined Refusal and "Don't Know" Statistics for Income Questions 79

Table IV.3 Summary of Up-Coding for "Other, Specify" Items 80

Table IV.4 Reliability of Base Year Data: Percentage of Preloaded Demographic Items that were Changed in the Interview 83

Table IV.5 Consistency Across Interviews: Terms at NPSAS School 85

Table IV.6 Consistency Across Interviews: Information About Other Schools 85

Table IV.7 Consistency Across Interviews: Information on terms Since February 1990 87

Table IV.8 Consistency Across Interviews: Education Services at NPSAS School . . . 89

Table IV.9 Consistency Across Interviews: Factors Related to Education Financing . . 91

Table IV.10 Consistency Across Interviews: Personal and Family Financial Support . . 91

Table IV.11 Consistency Across Interviews: Job Information 92

Table IV.12 Consistency Across Interviews: Primary Job 93

Table IV.13 Comparison of Institution- and Student-Reported Enrollment Status 95

Table IV.14 Student-Reported Program Completion Rates for Students Identified by NPSAS:90 School as Having Left Without Graduating 96

Table IV.15 Student-Reported Program Completion Rates for Students Identified by NPSAS:90 School as Having Graduated 96

Table IV.16 Agreement between Student- and Institutionally-Reported Date of Last Enrollment 97

Table IV.17 Summary of Analyses for Order Effects in Items Regarding "Per Term" Frequency of Participation in Specific School-Associated Activities 99

LIST OF TABLES (continued)

		Page
Table IV.18	Summary of Analyses for Order Effects in Items for Satisfaction with (and Use of, Where Applicable) Specific Aspects of School Environment	102
Table IV.19	Summary of Analyses for Order Effects in Items Regarding Importance of Specified Factors in Determining Life's Work	103
Table V.1	Specification of BPS:90/92 Database Sample	106
Table V.2	BPS:90/92 Description of Restricted Research Data Files	107
Table V.3	Distribution of Final Survey Eligibility and Status	109
Table V.4	Variables Examined in Developing Weight Adjustment Classes	111
Table V.5	Definition of, and Eligibility Rates within, Final Weight Adjustment Cells	112

LIST OF FIGURES

Figure II.1	Subsequent Partitioning of the Potential BPS:90/92 Sample	8
Figure II.2	BPS:90/92 Tracing and Data Collection Activity Flow	10
Figure II.3	Basic Configuration of BPS Integrated Control System (ICS)	14
Figure II.4	General Features of the RTI CATI Collection and Control System	16
Figure III.1	Result of Flow Locating/Contacting Activities	48
Figure III.2	Result Flow of Interviewing Activities	52

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Most of all, we are greatly indebted to the many postsecondary school administrators, students, former students, and their relatives who unselfishly gave of their time to provide locating information and/or study data.

I. INTRODUCTION, BACKGROUND, AND PURPOSE

A. Nature of The Document and Study Summary

This document is a summary and evaluation of the methodological procedures and results of the full-scale implementation of the Beginning Postsecondary Student Longitudinal Study, 1990-92 (BPS:90/92). The study was conducted for the National Center for Education Statistics (NCES) of the U. S. Department of Education, Washington, DC, as authorized by law [20 USC 1221.1] and the Higher Education Amendments of 1986, as amended by the Hawkins Stafford Amendments of 1988 [PL 100-297, Sections 300(i) and 300(k)]. BPS:90/92 (Contract No. RS90050001) was conducted by the Research Triangle Institute (RTI), assisted by Abt Associates, Inc. (AAI) and Management Planning Research Associates, Inc. (MPR).

The remainder of this introductory chapter provides a brief summary of major study procedures and results, and considers briefly the background, purposes, and scheduled products of the BPS study. BPS:90/92 involved locating and computer assisted interviewing (CATI) of a subset of 10,624 suspected first time beginning (FTB) postsecondary students from the National Postsecondary Student Assistance Study (NPSAS:90) sample. The nature of the sample and the design and method of the study are further detailed in Chapter II.

A number of CATI-external locating procedures were implemented both prior to and concurrent with actual CATI locating and interviewing. As a consequence of these efforts, locating rate among applicable sample members is estimated greater than 94 percent, and estimated applicable interviewing rate among those contacted is in excess of 96 percent; these results yield an overall applicable response rate of almost 91 percent, for an interview generally lasting between 40 and 45 minutes. Greater detail on operational details and outcomes (including innovative on-line coding procedures resulting in minimal error rates) is provided in Chapter III. Operational recommendations, arising from experience in this study are also provided in the last section of that chapter.

Examinations of the quality of collected data, detailed in Chapter IV, suggest minimal problems; recommendations for improving the quality of data for subsequent surveys are provided for each separate analysis. With the exception of sensitive questions, response indeterminacies were relatively low; also, examined data elements suggest acceptable reliability and validity. Likewise, question-administration order effects, where applicable, are estimated as quite small.

Summaries of the nature and content of developed restricted data files and public-release data analysis systems (DASs) are provided in Chapter V, together with descriptions of *post hoc* weight adjustment procedures. Supporting documentation of procedures/materials used and supplemental analytic results are provided as technical appendixes to the report.

The remainder of this introductory chapter considers briefly the background, purposes, and scheduled products of the BPS study. In Chapter II study design and method are described. Description of the operations and outcomes of BPS:90/92 are provided in Chapter III. Data quality examinations are documented in Chapter IV; data file construction and *post hoc* weight adjustments are overviewed in Chapter V. Supporting documentation of

materials used during the survey, as well as supplemental analytic results, are provided as Appendixes to the report.

B. Background and Purposes of BPS

The need for national data concerning pressing postsecondary education (PSE) issues (such as: access, choice, enrollment, persistence, progress, curriculum, attainment, continuation into graduate/professional school, and rates of return to society), led NCES to develop an information system to provide comprehensive data on these conditions and outcomes. The base for these data is the National Postsecondary Student Aid Study (NPSAS), first implemented in the 1986-87 school year, which yields a nationally representative cross-sectional sample of postsecondary students every three years. Cost efficiency, minimization of respondent burden, and maximization of utility of extant information dictated that the current BPS study use NPSAS:90 data collected from first time beginning/entering students (FTBs), and follow these students from their initial enrollment in PSE through completion of their education and entry into the workforce.

The BPS concept represents a bold departure from previous longitudinal PSE studies based on high school grade cohorts, in that it starts with a cohort of individuals beginning their postsecondary studies, *regardless of when they completed high school*. Consequently information will be available from BPS about "nontraditional" PSE students, who have delayed the continuation of their education due to military service, family responsibilities, or other reasons. This is important, since the "nontraditional" student represents a steadily growing segment of the postsecondary student population. All types of PSE students (academic, vocational/occupational, and technical) are included in the study and *they can be represented in known proportions* under the current design (rather than only stochastically under high school grade cohort designs).

Major educational policy questions to be addressed by information collected during the study are summarized below.

- How and why do students continue their enrollment in PSE?
- How is postsecondary education financed?
- What courses are taken and what grades and credits are earned?
- What fields of study are pursued?
- How extensive is, and what are the patterns of, transfers between colleges?
- What is the extent and timing of program completion?
- What is the extent of progress toward, and attainment of, degrees, licenses, or certificates?
- What is the nature and timing of application for, and continuation into, graduate or professional school?
- What is the impact of the postsecondary education experience on subsequent life experiences (jobs, family formation, lifestyles), particularly as related to returns for the overall society?
- How are these features of postsecondary education different for different types of starting PSE students?

The current BPS study is directed toward FTB PSE students in the 1989-90 school year, who were previously surveyed during NPSAS:90. Baseline (first PSE year) data for BPS was therefore collected during that prior study. The BPS:90/92 first follow-up has now been completed; a second follow-up, BPS:90/94 will be conducted during the winter and spring of 1994. Studies in the BPS series involve using computer-assisted telephone interviewing (CATI) with sample members to determine their educational and related experiences during the two year interval since they were last surveyed.

In addition to the inherent NPSAS:90 contributions to BPS:90/92, the study procedures and instrument benefitted from information obtained during a large field test and input from a Technical Review Panel (TRP). The field test, reported previously[1], was conducted in the Spring of 1991, using 1,981 academic year (AY) 1988-89 FTBs from the NPSAS:90 field test sample. The BPS:90/92 field test was useful in detecting a number of procedures and systems needing refinement prior to full scale implementation (as indicated in subsequent chapters). Input from TRP members (identified in Appendix E), who convened twice as a full panel prior to the full scale study, was also quite valuable in study refinements/improvements, particularly regarding efficiency of the study instrument. The study was conducted under OMB approval number 1850-0653, expiring in June, 1994.

C. Scheduled Additional Products of BPS:90/92

BPS:90/92 data will be used by federal and private organizations to produce analyses and reports covering a wide range of topics. Analytic files will be distributed to a variety of organizations and researchers. Restricted access research files documented by Electronic Codebooks (ECBs) as well as Data Analysis Systems (DASs) for public release are available. In addition to this Final Technical Report, BPS:90/92 will also yield a Descriptive Summary of significant findings.

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[1] *Beginning Postsecondary Students Longitudinal Study Field Test Methodology Report: BPS:90/92* (Contractor Report); NCES 92-160. National Center for Education Statistics: Washington, DC. August 1992.

II. SUMMARY OF DESIGN AND METHOD OF THE FULL-SCALE STUDY

A. The BPS:90/92 Sample

The BPS:90/92 sample consisted of students beginning PSE for the first time (i.e., FTBs) at any time between July 1, 1989 and June 30, 1990. This sample was a subset of interview respondents[2] in the full-scale sample for NPSAS:90. That sample covered all sectors of postsecondary education and all students enrolled in those sectors during the 1989-90 school year. Institutions offering programs in postsecondary education that were academically or vocationally oriented were eligible to participate in NPSAS if the institution:

- offered an educational program designed for those who had completed secondary education;
- offered programs that were academically, occupationally, or vocationally oriented;
- made program offerings available to persons other than those employed by the institution;
- offered more than only correspondence courses;
- offered programs that last at least three months or 300 contact hours, and
- was located in the 50 states, the District of Columbia, or Puerto Rico.

Institutions were excluded if they:

- only served secondary students;
- only provided avocational, recreational or remedial courses (e.g., hang gliding schools, exercise classes, dance courses); or
- only provided seminars of relatively short duration.

The NPSAS:90 student sample was drawn over multiple time segments (i.e., a fall sample and non-fall samples) to capture enrollments throughout the school year of interest (July 1, 1989 through June 30, 1990). This is particularly important for some technical/ occupational school programs that do not last for a full year and that begin at points in time that are not tied to the major academic school year enrollment periods. Students were eligible even if they were only enrolled part-time, and irrespective of their residence or citizenship status in the U.S.

Students were eligible for NPSAS:90, if they were enrolled in an eligible institution during the time period for one or more of the following purposes:

- taking course(s) for credit;
- in a degree or formal award program; or
- in an occupation-specific program.

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[2] NPSAS:90 interview nonrespondents had insufficient available information for even preliminary FTB classification; however, BPS:90 sampling weights were adjusted for NPSAS:90 interview non-response.

Regardless of meeting these criteria, students who were *only* in a high school program were not eligible. All other students, such as those only taking courses for remedial or avocational purposes and not receiving credit, those who were only auditing courses, or those who were only taking courses for leisure rather than as part of an academic, occupational or vocational program or course of study, were not eligible for the NPSAS:90 and, thus, not eligible for the BPS:90/92.

Sampling frames and procedures used in selecting the institutions and students from them are provided in a separate NPSAS:90 report.[3] The BPS:90/92 student sample was initially selected based on those who had available interview data and were identified as FTBs by the NPSAS:90 contractor. Table II.1 shows (by level and control of associated institution) the composition of the NPSAS:90 institutions and students with interview data and the potential BPS:90/92 institutional and student samples. Of the 1,533 institutions and 61,120 responding students in NPSAS:90, 11,700 from 1,092 institutions comprised the potential BPS:90/92 sample.

Table II.1 -- Composition of the NPSAS:90 and Potential BPS:90/92 Full-Scale Institution and Student Samples, by Type of NPSAS Institution

Type of Institution [a]	Total NPSAS:90 Institution Sample	BPS:90/92 Applicable Institutions	Number of NPSAS:90 Student Respondents	Potential BPS:90/92 Full-Scale Survey Sample
Total	1,533	1,092	61,120	11,700
Public 4-year	247	223	21,192	3,072
Private 4-year	301	269	24,221	3,982
Public 2-3 year	211	187	5,377	1,409
Independent 2-3 year	100	59	1,561	505
Proprietary 2-3 year	110	75	2,578	793
Public, less than 2-year	82	59	948	348
Independent, less than 2-year	105	26	508	126
Proprietary, less than 2-year	377	194	4,735	1,465

[a] Classifications as used by NPSAS; 4-year institutions also include those offering additional advanced degrees; private 4-year contains both independent 4-year and proprietary 4-year.

[3] Shepard, Jane. *1990 National Postsecondary Student Aid Study: Methodology Report* (Technical Report). National Center for Education Statistics, Washington, DC: 1991.

Pre-CATI data examinations identified a number of potential non-FTBs among the 11,700. Some had been selected within the NPSAS:90 graduate student or first-professional student stratum.[4] Additionally, some selected within the undergraduate sample reported upper level student status (e.g., sophomore, junior or senior) or prior receipt of a college degree.

Members of the sample of 11,700 were reclassified into four basic categories on the basis of extant variables[5]: (1) suspected FTBs (n=9,474), (2) suspected upper level undergraduates[6] (n=1,150), (3) suspected graduate students (n=766), and suspected first-professional students (n=310). The breakdown of the potential sample into separate groups and the subsequent sample sizes are shown in Figure II.1. Table II.2 shows the breakdown by type of NPSAS:90 school, using the BPS:90/92 classification; as might be expected, all suspected graduate, nearly all suspected first professionals, and over three-fourths of the suspected upper-level undergraduates came from schools offering at least a four-year program.

Because all of the suspect groups were potentially non-FTB, there was a real concern that project resources would be squandered by including them in the CATI sample. On the other hand, some verification of the non-FTB rates within these groups was needed. To satisfy both concerns, random test samples were drawn from the three suspect groups: 50 from each of the suspected graduate and first professional student groups and 100 from the suspected upper level undergraduates (as shown in Figure II.1).

The test samples were scheduled for contact early in the CATI process to estimate FTB rates within each group[7]. Evaluation of test samples (see Section III.C.3) resulted in exclusion of the suspected graduate student and suspected first professional groups; however, the suspected upper level undergraduate group was determined CATI eligible. Consequently, as shown in Figure II.1, the final CATI eligible sample contained 10,624 of the 11,700 in the potential sample. Additional non-FTBs were identified through reports from NPSAS institutions, sample members responses during the interview, and modelling procedures employed following data collection. As shown in Figure II.1 (and as further detailed in section III.C.3), the final BPS eligible sample contained 7,932 individuals. Corrections for group exclusions and for identified non-FTB were easily incorporated during *post hoc* weigh adjustment procedures (see Section IV.B).

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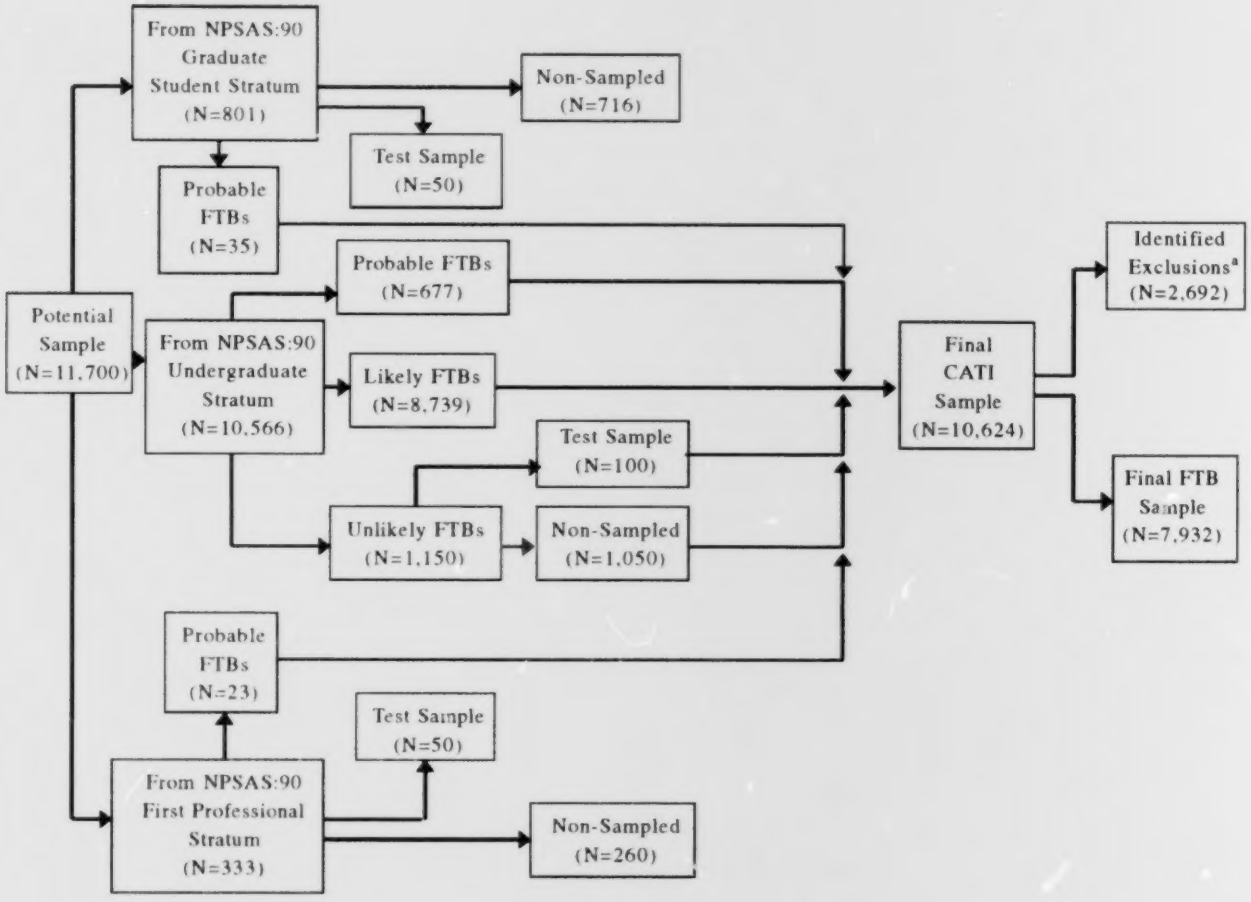
[4] The initial set of 11,700 potential FTBs contained 10,566 students selected as undergraduates, 801 selected from the graduate student stratum, and 333 selected from the first professional stratum.

[5] See related discussion in Section III.A.

[6] For the current purposes such students are defined as those beyond a first year classification (e.g., sophomores, juniors, and seniors).

[7] Decision rules, for inclusion/exclusion of the parent groups, on the basis of test sample results, were established prior to operation. The parent group (and the test sample) would be excluded if the FTB rate was estimated at 10 percent or less (and the established within-group FTB rate would be used for subsequent weight adjustment); an estimated FTB rate of 15 percent or greater would lead to inclusion of the full group (including the test sample) in the CATI sample. Intermediate rates would require additional evaluation.

Figure II.1 -- Subsequent Partitioning of the Potential BPS:90/92 Sample



[a]Includes cases identified or modeled as non-FTB or NPSAS:90 ineligible.

B. Basic Design

The basic BPS:90/92 design, shown schematically in Figure II.2, involved mail and telephone efforts to trace potential sample members to their current location and to conduct a CATI interview with them, both to establish study eligibility and to assess educational and related experiences during the two year interval since they were last surveyed. Additionally, for sample members originally selected from schools offering at least a 4-year program, an institutional enrollment verification sheet (for completion by the NPSAS:90 institutional coordinators) requested current enrollment status at the NPSAS:90 institution[8]. Procedures used in gathering tracing information and collecting data were relatively straightforward, based on refinements suggested by the field test experience.

The BPS:90/92 tracing file was initialized with the NPSAS:90 directory file (over 63,000 name/address/phone blocks for the 11,700 potential sample members -- up to 6 addresses, including current, permanent, and various tracing sources). Updates to the tracing file were made, where applicable, following each of the sequential tracing operations[9]. Considerable tracing was possible prior to OMB clearance of the student data collection[10], which greatly facilitated the quick initiation of CATI operations, once approval was granted.

Pre-CATI locating steps (in the order implemented) included:

- address/telephone upate through a national change of address (NCOA) service, involving access to the U.S. Postal Service Change of Address files for the past two years and to the Donneley Tape files[11];

- mailing tracing packets (see Appendix A) to the most knowledgeable tracing source previously identified by the sample memeber (a procedure determined useful in the field test);

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8 This information request was also instrumental in identifying non-FTBs at a number of institutions.

9 Additional tracing was needed because of the high mobility of most sample members at this stage of their lives and education (e.g., graduating from, transferring from, or otherwise leaving the base-year school; moving to a more favorable job market) and the dated (and, in some cases, redundant or considerably iess than complete) nature of extant tracing information.

10 Institutional enrollment status update had been approved previously; NCOA and Donneley Tape updates involved extant data; and tracing source mailings were restricted to verifying existing directory information.

11 This step, implemented in early October 1991, had not been used in the field-test, however, it was used as an addition to rather than a replacement of other tested procedures. Previous experience on other NCES studies demonstrated cost effectiveness relative to the first class postage and additional postal service change-of-address-notification charge for the projected undeliverable cases and address changes.

Figure II.2--BPS:90/92 Tracing and Data Collection Activity Flow

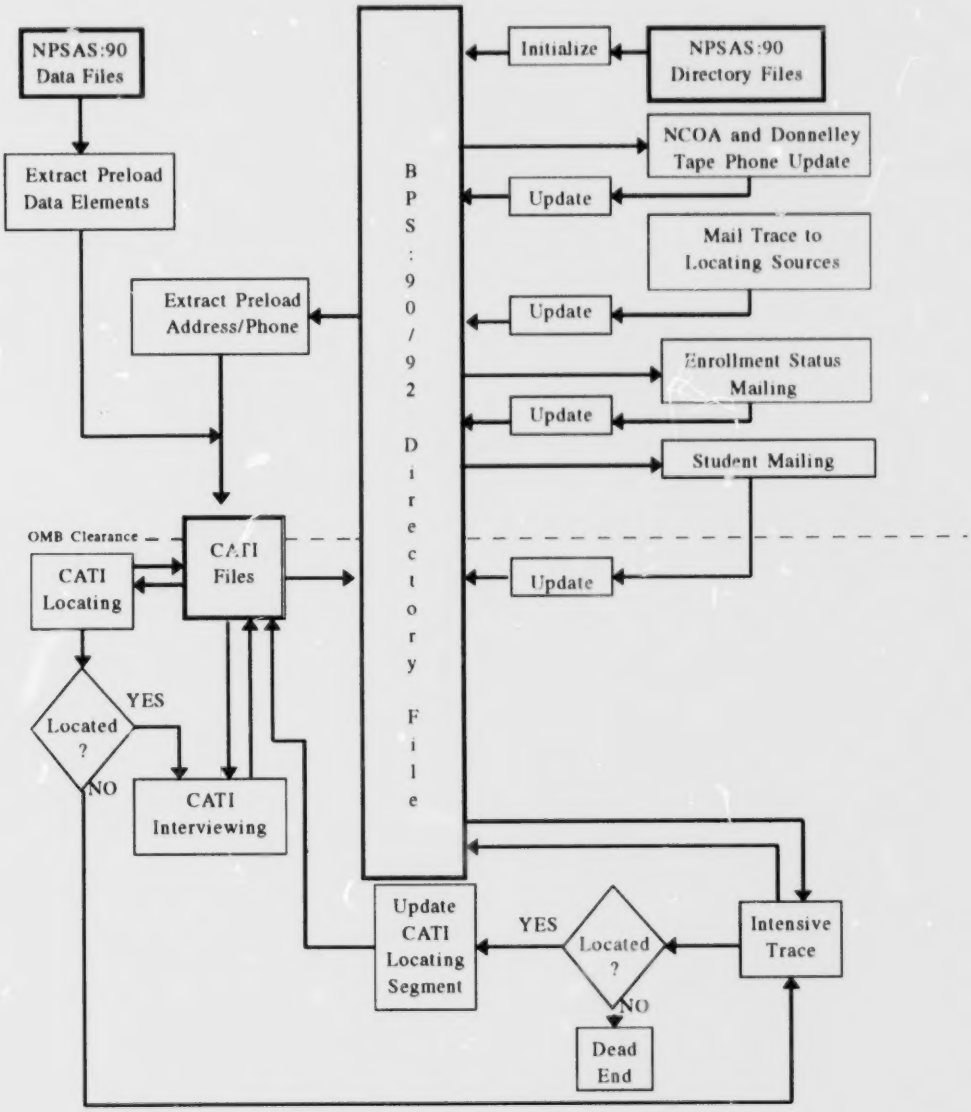

Table II.2 -- BPS:90/92 Potential Student Sample by NPSAS:90 School Type and Pre-CATI FTB Classification

Institution Type		Total Sample		Probable FTBs		Suspected Upper Level Undergraduates[a]		Suspected Graduate Students		Suspected First-Professional Students	
Level	Control	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Total	Total	11,700	100%	9,474	100%	1,150	100%	766	100%	310	100%
	Public	4,829	41%	3,840	40%	538	47%	366	48%	85	28%
	Independent	4,613	40%	3,471	37%	524	45%	400	52%	218	70%
	Proprietary	2,258	19%	2,163	23%	88	8%	0	0%	7	2%
Less Than 2 Year	Total	1,939	17%	1,906	20%	33	3%	0	0%	0	0%
	Public	348	3%	336	4%	12	1%	0	0%	0	0%
	Independent	126	1%	126	1%	0	0%	0	0%	0	0%
	Proprietary	1,465	13%	1,444	15%	21	2%	0	0%	0	0%
2-3 Year	Total	2,707	23%	2,463	26%	237	21%	0	0%	7	2%
	Public	1,409	12%	1,302	14%	107	9%	0	0%	0	0%
	Independent	505	4%	442	5%	63	6%	0	0%	0	0%
	Proprietary [b]	793	7%	719	7%	67	6%	0	0%	7	2%
4 + Year [c]	Total	7,054	60%	5,105	54%	880	76%	766	100%	303	98%
	Public	3,072	36%	2,202	23%	419	36%	366	48%	85	28%
	Independent	3,982	34%	2,903	31%	461	40%	400	52%	218	70%

NOTE: The BPS:90/92 institutional classification used here, and subsequently in this document, differs slightly from that used in NPSAS:90 and Table II.1.

[a] For current purposes, upper level students are defined as students beyond a first year classification (e.g., sophomores, juniors, and seniors).

[b] Proprietary schools offering more than 3-year programs are also included in this category.

[c] Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level of offering.

- an institutional enrollment status update (see Appendix B), providing information on sample member continued locatability at the NPSAS:90 school[12]; and

- mailing packets (See Appendix A) to sample members, notifying them of the forthcoming survey and requesting address/phone updates, if needed; this occurred about two weeks prior to initiation of CATI operations[13]

Prior to CATI implementation, subsets of data collected during NPSAS:90 as well as most current directory information for student and tracing sources were preloaded into the CATI records to be used during interviewing. Extant data were used to prioritize CATI locating procedures, to tailor the interviews, and to reduce respondent burden. CATI interviewing, initiated following OMB clearance and interviewer training, involved attempts to contact sample members using a prioritized calling plan, based on information obtained in earlier tracing activities, and then to administer the interview. A facsimile of the administered interview is provided in Appendix C[14].

Cases not located through the information loaded into CATI (or directory assistance calls, where warranted) were subjected to a CATI-external intensive tracing operation, using credit bureau checks, alumni offices, and other available sources of extant locating information. Sample members located through this process were reactivated in CATI after updating the CATI locator information.

All project activities were conducted in compliance with all applicable provisions of the Privacy Act of 1974 [5 U.S.C. 522a]; Privacy Act Regulations [34 CFR Part 5b]; Section 506(d) of the General Education Provisions Act; as amended by the Hawkins-Stafford Amendments of 1988 [P.L. 100-297]; and NCES Standards and Policies. Additionally, RTI maintains a standing Committee on Protection of Human Subjects to ensure that all Institute surveys of human populations comply with applicable regulations concerning informed consent, confidentiality, and protection of privacy. This committee independently reviewed the study design, instruments, and data collection/processing procedures to ensure that sample

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12 While the bulk of this operation was accomplished prior to CATI operations, the institutional request operation was not closed out until very near the end of CATI operations, since the information collected was also needed for weight adjustments and early response rates were not acceptable.

13 The timing of the student mailing, occurring considerably later in the process than during the field test, precluded inclusion of student-supplied address/phone updates/confirmations in the CATI file. ince field test student returns were quite low, maintaining proximal mail notification and interviewing was considered more important. Student mail returns, when received, were used to update the BPS:90/02 directory file; such informaion was quite useful if subsequent intensive trace was required for a case.

14 The actual interview was administered through a series of CATI screens, with both routing pattern and "fill-ins" to questions based on prior information obtained (both in NPSAS:90 and in previous segments of the first follow-up interview); consequently the interview was basically "unique" for each respondent and can not be represented by a single form. Because of the unique nature of each interview and the fact that a printout of all CATI screens (with blanks left for fill-ins) would require well over 1,000 pages, the facsimile is provided as representative of the nature of the interview for reader convenience.

members' rights were fully protected. All contractor staff were fully informed of the confidentiality, nondisclosure, and privacy requirements. Each project staff member (temporary or permanent) who was involved in any way with personally identifiable information was required to sign a Confidentiality Agreement and to sign an Affidavit of Nondisclosure.

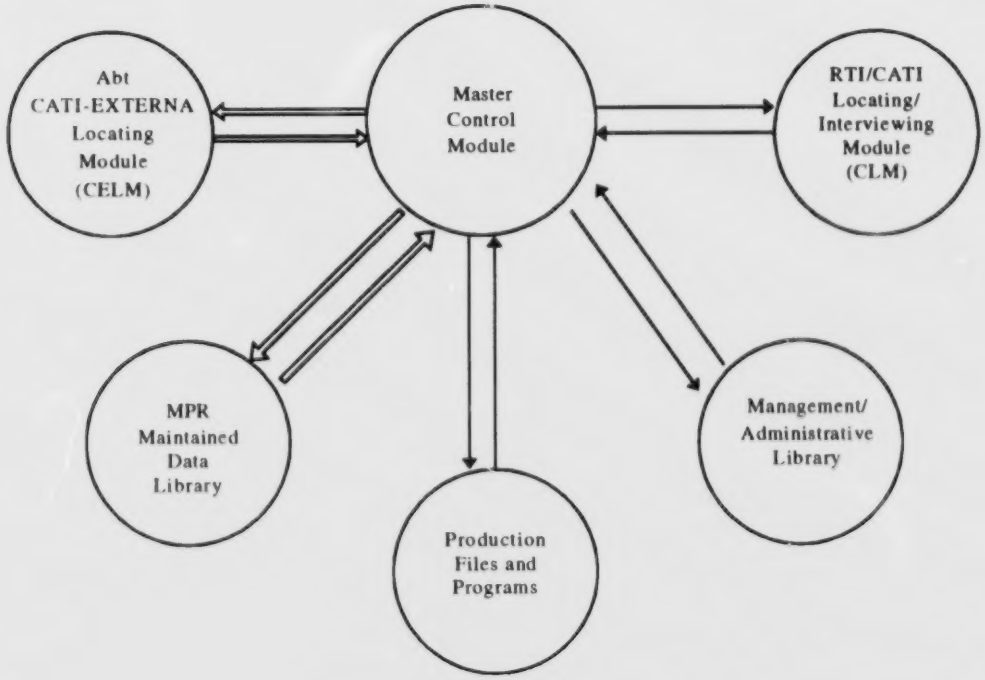
C. Operational and Information Control

All tracing and data collection and process activities were under the control of an Integrated Control System (ICS). The architecture and modules of this system were developed during the BPS:90/92 field test and refined for the full-scale study on the basis of field test evaluations. The versatility of this system is highlighted by the fact that various tasks were performed at different sites; the system enabled tight control on all phases of operation and provided accurate reports to NCES on each phase and across all phases.

Overall ICS coordination was handled by a master system, designed to interface easily with survey data files and with CATI-embedded control systems. This system was modeled on relational database management system concepts and used keys and linked files to gain efficiency. It provided easy access to all files and data elements. The system was linked through the primary keys and maintained control over input, output, updating, additions and deletion of items in the primary system. This master system interacted with five other modules as indicated in Figure II.3. The system also provided necessary security and limited access to confidential data. Major control modules of the ICS were the CATI-External Locating Module (CELM) and the CATI Locating/Interviewing Module (CLM).

The CELM was developed and operated in a Local Area Network (LAN) microcomputer environment, as a normalized relational database capable of handling several records of locating information from each source (maximum of 99 updates or disposition modifications per student). It was designed to manage all locating activities up to the point that a telephone call to the designated respondent was attempted in CATI as well as the CATI-external intensive trace. These activities included: (1) tracking initial contacts and follow-ups with institutions to designate a coordinator; (2) producing files necessary for mailout (or delivery, in the case of NCOA) of materials to all sources; (3) receipt and entry for all returned information, from sources, NCOA service, or postal service; (4) telephone follow-up to institutions or call-ins from parents/other locators in response to mailings; (5) production of required management reports for shop supervisors, management, and NCES use; and (6) generation/receipt of all locator files to/from the CATI operation.

Figure II.3--Basic Configuration of BPS Integrated Control System (ICS)



Note: Solid arrows indicate direct links, open arrows indicate telecommunication links. With the exception of production files and programs, all modules are directly accessbile to NCES for remote query

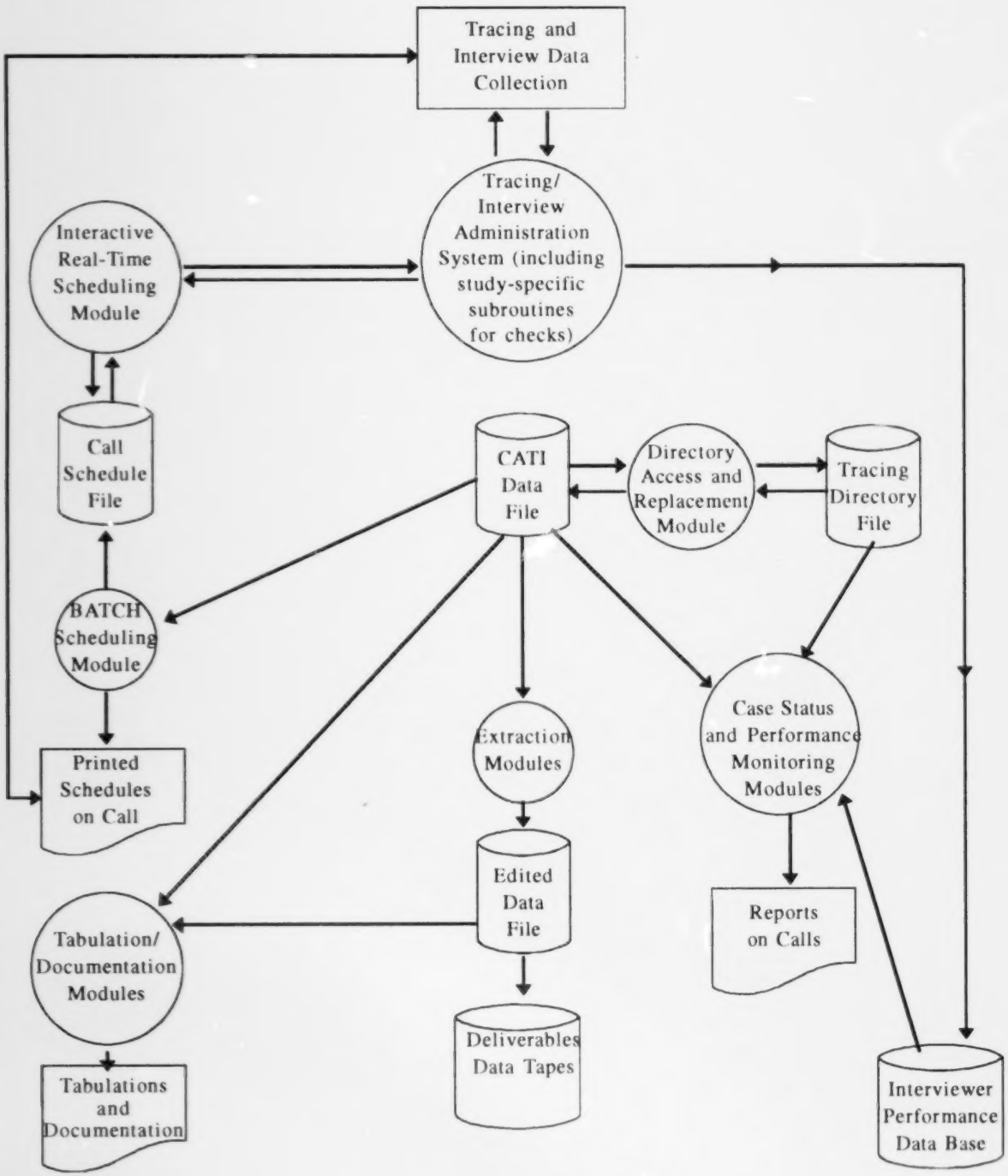
The CLM was designed to operate within a networked PC and VAX cluster, to manage all locating information updates that were required during the actual attempts to interview cases and during interviewing activities, and to interface with the CELM as needed in transfer of information. The CLM contained the most current locating information for a sample member, plus current locating data for other individuals (parents, relatives, friends) that could be used to track the whereabouts of a sample member. Once the interview was completed and the respondent's (and other significant tracing source's) location(s) and phone number(s) were verified, the new information obtained in the interviews was added to the CELM (and currency and source flags updated) to prepare that database for locating/tracking activities for the next survey wave (BPS:90/94).

A schematic of the CLM submodules most directly involved in CATI locating and interviewing is shown in Figure II.4. In addition to normal CATI control features (e.g., interview flow control, tailoring questions with appropriate data fills, establishing time stamps, and internal data consistency checks), functions performed included: (1) automatic (or hard copy) scheduling of cases for locating/interview, on the basis of an established calling plan and case history; (2) flexible locating updates, allowing addition of new phone numbers, as discovered, and both automated and interactive procedures for queuing the appropriate number to call within a case; (3) maintaining time, interviewer ID, results, and comments (if needed) for each call and each telephone number within each case; (4) creating, at each case access, a separate record for an interviewer performance data base (identifying interviewer and the timing and results of the access); and (5) on-demand reports of individual or aggregated status (by individual or by telephone number).

The master ICS served the major functions of controlling data flow and management (particularly between the CLM and CELM), CATI operations, data extraction, editing/coding, documentation, and file preparation for delivery. Status information from the CELM and the CLM was transmitted to the master ICS as update transactions to allow control of the flow of events in the system and to ensure proper performance of study requirements. Generated status reports documented individual and/or overall progress in terms of specific tasks. Case disposition control codes used in these two major modules as well as those used in the master system are provided in Appendix F.

While the CATI file was basically rectangular in layout, records were of variable length to accommodate data compression. The resultant BPS:90/92 database was established as a relational database with logical categories defining the varying data tables (files) at RTI, AAI, and MPR Associates. The relevant databases included NPSAS base year data, directory/locating information, BPS:90/92 survey data, and deliverable reports and files. Database construction is further described in Section V.A.

Figure II.4--General Features of the RTI CATI Collection and Control System



D. Evaluation Design

Experimental treatments and their evaluations are generally considered appropriate only for field-test studies; consequently, no such experiments were designed for the BPS:90/92 full-scale study. Nonetheless, some procedures were implemented in the full scale study that had not been tested in the field test, and evaluation of these and other study procedures have obvious implications for possible improvement for subsequent follow-ups and for potential field test experiments associated with such future surveys of the BPS:90 cohort.

Each major component of the study was evaluated. The evaluation methodology consisted of both formative and summative analyses. Formative evaluations were of an ongoing nature and were designed to assess a task at intermediate stages so that the effects of employing methodologies could be analyzed and modifications and revisions could be employed and assessed prior to task completion. Summative evaluations assessed the results of the study, including all attempts at modification of the workflow, and will be used to optimize procedures in subsequent follow-ups. A summary of field test evaluations that were planned is provided in Table II.3. The listed debriefing of operational staff provides a unique perspective for evaluating the design and method of the study. Separate debriefing discussion sessions were conducted with survey operations staff, interviewers, interview quality control monitors, and interviewer supervisors. Debriefing discussions covered issues relevant to each group of survey staff. Other evaluation procedures were generally analytic.

Three additional evaluation design elements were: (1) evaluation of the FTB rates in test samples from the suspect groups of the potential sample (see discussion in Section II.A)[15]; (2) a reliability reinterview (after 3 to 5 weeks), with a sample of BPS:90/92 eligible respondents; and (3) evaluation of on-line, computer-assisted assignment of Integrated Postsecondary Education Data System (IPEDS) codes to identified institutions and computer-assisted coding of industry, occupation, and major course of study.

The reliability reinterview contained selected subsets of items about educational experiences/financing and employment history; a separate facsimile of the reliability interview is provided in Appendix C. Eligible respondents were sampled on-line for this reinterview and notified of their selection at the conclusion of the initial interview; a total of 200 selected respondents agreed to participate in the reinterview. Due to the success of on-line, computer-assisted coding of IPEDS during the field test, this procedure was adopted for the full-scale study. Additionally, procedures were developed for on-line autocoding and/or computer-assisted coding of industry and occupation for job(s) held by sample member (and spouse/partner, if applicable), and for major course of study. Evaluation of the previously untested procedures as well as reevaluation of the IPEDS coding subroutines were undertaken.

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[15] Test sample members received an abbreviated form of the interview (principally that portion determining FTB status); the nature of the abbreviated form is shown in the facsimile of the main interview in Appendix C.

Table II.3 -- BPS:90/92 Full-Scale Evaluation Summary

Major Evaluation Area	Evaluation Approaches
FTB Identification	Assess test sample FTB rates for inclusion/exclusion of suspect groups in CATI sample.
	Verify NPSAS:90 responses used to Identify FTBs in all interviews.
Systems Operation	Observe (and correct) all anomalous systems operations
Tracing Activities/ Institutional Data Collection	Debriefing of tracing staff.
	Analysis of tracing results and costs.
Interview Administration and Data Quality	Debriefing of interviewers, "refusal converters", supervisors, and quality control monitors.
	Analysis of CATI production report statistics.
	Analysis of interview administration time (overall and within section).
	Analysis of rates of interview nonresponse, early and subsequent break-off, types of interview response inconsistencies, and nonresponse patterns.
	Analysis of number of calls per case.
	Validation of student responses against institutional responses.
	Analysis of temporal stability of responses through reinterviews.
On-Line Coding	Analysis of results of on-line coding of IPEDS number, industry and occupation, and major course of study.
File Development	Observation and documentation of procedural issues in preparing files, electronic codebooks, and Data Analysis Systems (DASs).

III. DATA COLLECTION ACTIVITIES AND RESULTS

A. Preparatory Activities

1. Preliminary File Work

Preparing data for locating operations and CATI required abstraction from (and frequently reformatting of, or composite development from) information in the NPSAS:90 files. Four principal NPSAS:90 data files/systems were provided: (a) an NCES-prepared file defining the 11,700 potential BPS:90/92 sample members and containing variables related to FTB status and characteristics of the NPSAS:90 school; (b) the Student Locator File (for the full NPSAS:90 sample); (c) a Coordinator File containing coordinator names and addresses for NPSAS:90 institutions; and (d) the NPSAS:90 CD data system, containing (in addition to electronic codebook files) eighteen separate relational file modules with data from record abstracts, student interviews, parent interviews, and derived variables. Two of the IPEDS Institutional Characteristics (IC) files (for 1989-80 and 1990-91; which contained, among other things, Institution name and IPEDS number, chief administrator names and titles, level and control, and undergraduate tuition amounts) were also used.

Some manual manipulation and/or programming was needed to clean the files and/or make them compatible for purposes of BPS:90/92. The extent of such tasks (as well as preparing the sample data for mailing, producing update/confirmation sheets, and loading into ICS modules) was considerably reduced from that experienced in the field test. The improved efficiency was attributable to: (a) refinements to field test systems developed for these procedures, and (b) the markedly better quality of the files.

An initial modification involved shortening the NPSAS:90 ID numbers. The 13-digit student IDs were considered problematic for the CATI interviewers and locating staff to use on a routine basis. The time to enter ID number as well as the likelihood of entering an incorrect ID was reduced by recoding to an 8-digit ID system.[16] Subsequently, all files were subsetted to the 11,700 potential sample members identified by NCES.

NPSAS:90 student locator information was needed for both CATI external locating and for CATI preloads. Locator files contained a header record for each student followed by a variable number of address records, corresponding to the number of different[17] name/address/phone blocks available for the student[18]. Subsequent file updates[19] were incorporated. Files were developed from the NPSAS:90 locator data for several different purposes: (a) as preloads to the CATI file (to be updated or confirmed in the final section of the BPS:90/92

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16 The resulting system maintained the imbedding of School ID within the student ID number, and crosswalk tables for long (NPSAS) and short (BPS) IDs were maintained.

17 In some cases, "different" address blocks for a given student were, in fact, identical.

18 Not all name/address/phone records contained complete information, and some records included duplicate information.

19 Update files to correct the initially provided student locator files were subsequently provided (e.g., in constructing the original file relationship codes had been omitted).

interview); (b) as preloads the CATI-External Locating Module (CELM) (to be updated/ corrected from the NCOA effort and returns to the various mailings -- and subsequently to be extracted and prioritized as preloads to the CATI calling module); (c) as the basis for NCOA updates/confirmations; (d) as a source of names, addresses, and telephone numbers to be presented on an information page (mailed to parents, friends or relatives, and students for update or confirmation -- see Appendix A); (e) as a source of names and addresses where letters and the information page would be mailed; and (f) as one basis for intensive tracing of all cases that could not be contacted in CATI.

The relational structure of the locator files was amenable to preparing the information for NCOA, which requires a separate record per address. However, the CELM and CATI modules of the ICS required a "flat" file format with one record per student case, requiring combination of multiple locator records into a single student record (with eight separate sets of address/phone variables for the CELM and six -- student local, permanent, locator source, mother, father, and unspecified parent -- for CATI).

Following Pre-CATI tracing activities, name/address/phone files were developed for CATI preload. The full-scale files contained a single parent field, while the CATI program had been developed to collect information separately for mother (female guardian) and father (male guardian), reflecting the nature of the NPSAS:90 field test locator files. The "parent" address was associated with a code (sometimes missing) indicating mother, father, or simply parent[20] following review of existing data, a computer algorithm was developed (using the code and unique differences in the alpha strings) to appropriately partition the information into one of three categories: mother, father, or unspecified parent. The CATI program was further modified to allow determination of the nature of the unspecified parent(s), and to appropriately classify information for use in subsequent follow-ups as mother and/or father.

In addition to the locating files, institution level data were provided containing the names and addresses of the NPSAS:90 institutions and coordinators. (This information was used for mailing the requests for student enrollment information to the original NPSAS:90 institutions offering at least four-year programs.) In preparing the institution level name/ address/phone file, it was necessary to use both the NPSAS:90 full-scale coordinator file and the 1990-91 IC file (since the coordinator file information was sometimes missing or incomplete and not all institutions were covered on the IC file).

Remaining CATI preloads consisted of a calling block (prepared directly from the CELM and thus requiring no additional work with the NPSAS:90 files *per se*) and data elements from the NPSAS:90 student and parent interviews, record abstractions, and derived variables. The latter preloads were used to reduce burden, to tailor the interview, and to guide and/or prompt the student interview based on what was already known from NPSAS:90. These preload variables were abstracted from the data modules of the NPSAS:90 CD data system. These modules had varying record structures; consequently, here too it was necessary to reformat into a per student record structure that would be compatible with CATI. Term

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[20] In most cases, the code of "parent" was associated with a listing of both parents (e.g., Mr. and Mrs. J. P. Smith, Jane and Harold Jones); in other cases, only a single name appeared.

data, in particular, required careful screening to detect missing or out of range data and to insure proper sequencing. Terms with bad dates were eliminated and the remaining terms, if any, were correctly sequenced. Data checks were performed on all other variables to ensure that indeterminate or inappropriate data were not preloaded; this required visual checks for alpha variables to detect indeterminate or inappropriate entries (e.g., "NONE", "NA", ".", and "SAME"). Several of the NPSAS:90 variables required minor recoding to agree with previously adopted BPS:90/92 conventions and/or the structure of the CATI instrument.

Some additional file work was required to preload dictionaries for the IPEDS on-line coding procedure. All such work was restricted to the two IC files and coding dictionaries developed in the field test. Principal activities included adding level, control, and undergraduate tuition amount(s) from the 1990-91 IPEDS and ensuring cross listing of schools with name changes. Extraction and composite development from the NPSAS:90 CD data system was also required in initial and subsequent investigations of FTB status (see Section III.C.3).

2. Training

Given the complexity of some of the CATI and CATI-external operations, considerable resources were devoted to training activities. Separate training was conducted for the intensive trace and CATI operations. Training sessions were held no more than two weeks prior to initiation of the activity (to reduce degradation of learning) and gave heavy emphasis to "hands-on" operation. Training for intensive tracing lasted approximately eight hours, while CATI training involved a minimum of 24 hours of study-specific training.

CATI implementation involved three separate shifts (to appropriately cover interviewing stations during week days, week nights, and weekends), and separate training sessions were conducted for each group[21]. Consequently, training for some groups was spread over 5 days. A 1-day retraining was also required for three of the CATI interviewers who were detected as needing it during quality control monitoring.

B. CATI-External Tracing and Mailings

The primary purpose of the BPS:90/92 extra-CATI locating activities was to facilitate the task of the CATI interviewers, enabling them to spend as much time as possible contacting and interviewing respondents by minimizing time required for locating respondents to interview. Consequently, a separate staff of locators were trained to handle pre-CATI and subsequently post-CATI locating activities. The procedures and results of the various extra-CATI locating activities are documented in this section.

As a result of pre-CATI locating, CATI interviewers were provided with up to five telephone numbers for each sample member. Phone numbers were listed in order of "priority" (i.e., order in which they should be called) based on estimated likelihood of

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[21] In some instances, night shift and weekend shift members had additional jobs and were only available for training during the time they were available to work.

reaching the student at the number. Not all provided phone numbers were necessarily student specific; numbers for parents and/or other locating sources were generally included but were coded as such and assigned a lower priority. Numbers which had been confirmed or updated prior to CATI (by students, tracing sources, and/or NCOA) were given highest priority. New student telephone numbers provided by parent/other or student mail returns received after the start of CATI were delivered to CATI on a flow basis as a top priority.

1. National Change of Address Lookup.

The NPSAS:90 locating file (containing all student, parent, and other tracing source names, addresses, and telephone numbers previously provided by students and NPSAS:90 institutions) was subjected, in September of 1991, to a National Change of Address (NCOA) lookup by a secure vendor. The NCOA operation appended additional data to each separate name/address/phone record in the original file. The full preliminary sample of 11,700 was submitted for NCOA lookup, since final sample eligibility determination had not been made at the time and no additional charges were incurred for the additional inclusions. Results reported, however, are restricted to 10,724 cases (the CATI sample plus the two 50-case test samples of suspected graduate students and first-professional students), since this is the group ultimately loaded into the CELM. This was also the group identified for student and parent/other mailings.

The NCOA lookup provided three important pieces of information: (a) changes of address from a national database of all mail forwarding information obtained by the postal service over the past two years, (b) the standardization of all addresses to postal regulation requirements (presumably to speed delivery of letters), and (c) an indication for each address as to potential undeliverability. The NCOA lookup did *not* confirm address information for all individuals. The NCOA lookup vendor also provided telephone information; the locating file was passed with NCOA's telephone append file to provide current phone numbers (through updates or confirmations) for matching names and addresses. The telephone numbers used in the confirmation/update process come from a variety of sources, but are primarily from Donneley directory files.

Of 10,724 student cases, 10,673 had student permanent addresses, 10,606 had student local addresses, and 10,082 had parent/other addresses. NCOA provided updated forwarding addresses for 11.7 percent of the student permanent addresses, 10 percent of the student local addresses, and 6.7 percent of the parent/other addresses.

In total, 63,011 student and tracing source records (having some existing address information) were submitted for telephone update; results are shown in Table III.1. NCOA information significantly decreased the number of cases without telephone numbers. In total, updates or confirmations of telephone information were supplied for 27,302 (43.3 percent); however, the update/confirmation rate varies (from 30 to 57 percent) depending principally on the type of name/address/phone block considered.[22]

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[22] It should be noted that NPSAS:90 files contained no phone numbers for the three student addresses obtained in the base year student interview; confirmation was consequently impossible.

Table III.1 -- NCOA Supplied Telephone Information

Address/Phone Type (and Source) Submitted to NCOA	Number Sent to NCOA	Total Updates/ Confirmations		Phone Number Confirmations		Phone Number Updates	
		Number	Percent	Number	Percent	Number	Percent
TOTALS	63,011	27,302	43.3	14,610	23.2	12,692	20.1
Student Local (NPSAS:90 Institution)	10,946	3,313	30.3	2,289	20.9	1,024	09.4
Student Permanent (NPSAS:90 Institution)	10,620	4,853	45.7	3,717	35.0	1,136	10.7
Student Mailing Address (NPSAS:90 Interview) [a]	428	181	42.3	NA	NA	181	42.3
Student Permanent (NPSAS:90 Interview) [a]	11,353	5,237	46.1	NA	NA	5,237	46.1
Student Local (NPSAS:90 Interview) [a]	11,180	3,650	32.6	NA	NA	3,650	32.6
Other Locator (NPSAS:90 Interview)	9,971	5,213	52.3	4,363	43.8	850	08.5
Parent (NPSAS:90 Interview)	8,513	4,855	57.0	4,241	49.8	614	07.2

NOTE: Based on the 10,624 CATI sample members plus 100 additional cases in two (graduate and first professional student) test samples; all percents are based on total submitted within category.

[a] No telephone information existed; consequently NCOA confirmation was impossible.

Because NCOA was not used in the field test due to time constraints, an evaluation was carried out early in the pre-CATI locating phase prior to any other locating efforts. A total of 160 cases was selected randomly from a total of 4,932 cases for whom NCOA provided a phone number for the student local or permanent address. The procedures, which were used to validate the NCOA updates, included telephoning directory assistance or (when confirmation could not be obtained in that manner). A phone number was defined as accurate if the student name and address matched exactly directory assistance information or if a call placed to the number resulted in verification that the student could be (or was) reached at that number. Additionally, some telephone numbers (usually for the student permanent address) provided a student number indirectly. The results of these calls are shown in Table III.2.

About two-thirds (106) of the cases were reached directly at the NCOA-provided student number, and 78.1 percent were reached directly or indirectly at a student number. Projections of these results for the entire sample of 4,932 cases for whom a student phone number was provided by NCOA (weighting proportionately by institutional level and control in the full group) yields only a 61 percent direct contact rate but a direct **or** indirect rate of approximately 78 percent. The difference is attributable to the fact that cases in the 4+ year institution were less likely to have a correct NCOA local number yet more likely to have a correct permanent number than students from the other school types.

Table III.2 -- Results of the NCOA Student Telephone Number Validation

Final Result of Validation Attempts	Number	Percent
Total validation attempts	160	100.0
Student was reachable at NCOA phone number	106	66.3
New student number obtained through the NCOA number	19	11.9
Student was *not* reachable at NCOA phone number	28	17.5
Status of NCOA number unknown/not verified	7	4.4

2. Parent/Other Mailing

In October, 1991, tracing source mail packets were prepared and posted. These mailings were made to parents, if parent addresses existed and had not been identified as "undeliverable" by NCOA, or to other identified relatives or friends when a potentially deliverable parent address was not available.[23] Although the success rate of the NCOA-provided phone numbers was relatively high, these requests were mailed regardless of whether a telephone number was provided by NCOA for the case. Nonetheless, because of the initial quality of NCOA information, it was deemed unnecessary to place pre-CATI followup calls to parents/others who did not respond to the mailing.

The packets (see Appendix A) included a request to the locating source for updates or confirmations of the addresses and telephone numbers provided by the student during NPSAS:90 (as updated by NCOA, if applicable). Packets also contained: letters from the Deputy Project Director and NCES officials, a study information leaflet (explaining the study purpose, confidentiality, and endorsing associations), and an update sheet containing the source's and the student's existing address and telephone information, with instructions on updating/confirming.

Overall results of the locator source mailing are shown in Table III.3. Approximately 29 percent (2,791) of the parents/others responded to the mail request and returned student information. Of these, 2,644 (27 percent of the total mailed and 95 percent of all returns) included at least one updated or confirmed student phone number. Eighty-nine returns included partial student locating information but did not contain an updated/confirmed student phone number. Sixteen returns contained information indicating that they did not know how to contact the student, 29 that the student was unavailable for the duration of the survey period, 6 that the student had no phone, and 4 that the student was deceased.[24]

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[23] No potentially deliverable source was available for 9.5 percent (1,018) of the 10,724 students.

[24] Information that the tracing source was deceased was returned in 3 cases

Table III.3 -- Results of Parent/Other and Student Mailings

Mailing Group	Total Mailed	Mail Results			
		Returns [a]		Undeliverable	
		Number	Percent	Number	Percent
Parent/Other	9,706	2,791	28.76	355	3.66
Student	10,629	1,475	13.88	627	5.90

NOTE: Results are based on 10,724 sample members eligible for mailing; percents are based on total mailed.
[a] Includes returns providing information other than address/phone update/confirmation.

Results of the parent/other (and student) mailings indicated no clear advantages in terms of increased response rate or decreased undeliverable rate when NCOA-supplied new addresses were used for the mailings, as shown in Table III.4 On average, percentages of mail returns and undeliverables were quite similar for parent (and student) mailings in the NCOA updated group and in the total group.

Table III.4 -- Results of Parent/Other and Student NCOA Address Updates and Results of Mailings to Updated Addresses within These Groups

Address Group	Cases Submitted to NCOA	NCOA Supplied New Addresses [a]		Response for NCOA Updated Addresses					
				Mailed to New Address [b]		Mail Returns [c] [d]		Undeliverable [d]	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Parent/Other	10,082	679	6.73	679	100.00	185	27.25	23	3.39
Student Local	10,606	1067	10.06	240	22.49	68	28.33	9	3.75
Student Permanent	10,673	1251	11.72	973	77.78	100	10.28	86	8.84

NOTE: Results are provided for the 10,724 sample members eligible for mailing.
[a] Percentages based on total submitted to NCOA.
[b] Percentages based on number of addresses supplied by NCOA.
[c] Includes returns proving information other than address/phone updates/confirmations.
[d] Percentages based on number mailed.

3. Student Mailing

The mailing to the student sample was prepared and posted during January, 1992. The packets mailed to students (see Appendix A), notified them of the forthcoming survey, requested updated directory information, and included the same basic material used in the parent/other mailing. Of the 10,724 sample members, mailing address information was available for 10,629 (99.1 percent) by this time. Student permanent addresses which had been updated by parents or others received top priority in the selection of student mailing addresses. Parent-updated or other-updated student local addresses were second in priority. Permanent addresses, followed by local addresses, which had been updated by NCOA were selected as the next two priorities. Original NPSAS:90 permanent and local addresses, respectively, were the fourth and fifth student mailing address options.

The basic decision to select permanent addresses over local (or school) addresses was based, primarily, on past research results regarding mailings to postsecondary cohorts and on experience with a similar mailing in the field test. Further, the NCOA address lookup identified over 20 percent local addresses as being potentially undeliverable, compared to a 5 percent permanent address undeliverable rate.

Returns to the student mailing, about 14 percent of the requests mailed, were proportionately lower than for parents/others (see Table III.3). At least one updated/confirmed student phone number was included in 1,401 of these (13.2 percent of the total mailed; 95.0 percent of all returns). Twenty-eight returns provided partial locating information with no update/confirm of phone numbers. In 20 cases, the student, or someone acting on his/her behalf, returned information which claimed that he/she was unavailable for the duration of the survey period, and information returned, on behalf of the student, in 4 cases indicated that the student was deceased. Students explicitly refused to participate in BPS in 10 mail returns, while 8 students claimed to have no phone. Finally, presumably after reading the project materials which define the BPS population, 4 students identified themselves as ineligible non-FTBs.

4. Productivity of Pre-CATI Tracing Efforts.

Each phone number updated or confirmed by NCOA, students, and/or parents/others was analyzed to determine if that phone number was the number at which the student was ultimately contacted[25] during CATI. Table III.5 shows numbers of cases contacted by source (including NPSAS:90 locating file numbers) for 5 different phone types; the table also shows percentage of these counts based on all 9,763 cases with whom contact was made[26]. Counts and associated percentages are not mutually exclusive either by source or by phone type criteria (e.g., the parent/other source may have confirmed the same phone

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[25] For purposes of this report, contact is generally defined as speaking with the sample member at a phone number or having someone at the number identify it as sample members residence (or in some cases place of work).

[26] Counts include cases in the final CATI sample plus the test samples from groups subsequently excluded; counts also include initial contact cases subsequently lost through moving and/or the number going bad.

Table III.5 -- CATI Contact Number by Phone Type and Source

Contact Phone Type	Source of Contact Number							
	NCOA		Parent/Other		Student		NPSAS:90	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Any Provided Number	2,945	30.2	1,836	18.8	1,144	11.7	5,301	54.3
Student Local	1,575	16.1	1,472	15.1	994	10.2	3,046	31.2
Student Permanent	2,134	21.8	1,253	12.8	728	7.5	3,811	39.0
Student Work [a]	NA		32	0.3	18	0.2	NA	
Parent/Other Home or Work [b]	2,871	29.4	793	8.1	NA		3,183	32.6

NOTE: Counts represent contact at specified number/source type; NCOA, Parent/Other, and Student counts are restricted to updated/confirmed numbers only, while NPSAS:90 counts are not restricted. Percentages are based on the 9,763 cases with whom contact was made; this total (and associated counts) include cases in the CATI sample and test samples as well as contacted cases subsequently lost through moving and/or number going bad.

[a] NPSAS:90 provided no work addresses or phone numbers; thus, NCOA had none to update/confirm.

[b] Parent/Other addresses and phone numbers were not requested of sample members by mail.

number at both the student local and permanent addresses that was provided by NPSAS:90 and subsequently reconfirmed by the sample member).

In addition to the redundancies reflected in Table III.5, it should be kept in mind that the counts and percentages address quantity of contact numbers from each source and not the quality of such numbers. In this case, however, quality and quantity are inversely related; some insight into quality can be obtained by comparing the counts in Table III.5 with those previously reported (Tables III.1 and III.3 and associated text).

For NPSAS:90 locating numbers, student-level quality and quantity (about 55 percent) are comparable, since some NPSAS:90 student telephone number existed for most sample members. NCOA provided updated numbers for less than half the sample members; assuming this represented even as much as half of those contacted, the student-level quality percentage would exceed 60 percent. Of the 2,664 parent/others providing update/confirmations of a sample members phone number, almost 69 percent (1,836) led to a student contact. Finally, of the 1,401 students updating or confirming phone numbers, 1,144 (over 81 percent) were contacted at one of the numbers provided.

Nonetheless, quantity of "hits" is an important consideration, particularly in light of the fact that NCOA, parent/other information, and student information are, respectively, available for smaller and smaller subsets of the entire sample. Of particular note is that 5,301 (well over half) of the contacts were made with a phone number from the NPSAS:90 locator file. This represented nearly a 10 percentage point increase compared to the field test results for preload numbers. The utility of NPSAS:90 data can be better evaluated by removing

Table III.6 -- Provision, by Three Sources, of *Any* Phone Number Leading to CATI Contact that Was Not Redundant with a NPSAS:90 Number

Source of Contact Numbers					
NCOA		Parent/Other		Student	
Number	Percent	Number	Percent	Number	Percent
182	1.9%	708	7.2%	532	5.4%

NOTE: Percentages are based on the 9,763 cases with whom contact was made; this total (and associated counts) include cases in the CATI sample and test samples as well as contacted cases subsequently lost through moving and/or number going bad.

redundancies with it from the remaining three sources of student phone numbers. Table III.6 shows the number and percent of CATI-contact phone numbers provided by NCOA, parents/ others, and students that were *not* already available from NPSAS:90. For the three sources identified, results in Table III.6 can be compared to results in the first row of Table III.5, revealing the marked extent to which contact numbers from these sources duplicated those that were available from NPSAS:90.

5. Institutional Mailings

An institutional mailing, consisting of requests for updates of BPS students' enrollment information, was made to the NPSAS:90 institutional coordinators at schools with at least a 4-year program. No requests for locating information were made in this mailout. Student enrollment status data was needed for determination of sample weighting (see Section V.B) and for help in suggesting appropriate sources for subsequent tracing, if needed.

Institutional packets (See Appendix B) were mailed to all 481 4-year (or more) NPSAS:90 schools with students in the BPS sample (a total of 5,985 sample members had been enrolled at these institutions during the AY89/90). Information requested for each student was quite minimal, requiring a check mark to indicate each student's enrollment status: (a) currently enrolled at institution, (b) no longer enrolled but having completed a school program and received a degree, diploma, certificate, or license, or (c) no longer enrolled and not having completed a school program. Date of last enrollment was also requested for all students in the latter two categories. Also included in the packet was the study information leaflet and a letter acknowledging prior assistance, describing and justifying current needs, and requesting continued support.

From January to March, and during June of 1992, follow-up prompting calls were made to coordinators not previously responding. Follow-up calls offered clarification of the request and reiterated the importance of the schools' past contributions and continued support. The late returns of information (specifically those received after the June 1992 prompting effort) contained a large number of students marked as "not currently enrolled..." It appeared that the institutions were marking students as not enrolled if they were not attending a

summer term, and calls to the schools confirmed this suspicion. Since the date the student last attended the institution was provided for such students, they were re-coded to "currently enrolled," if the last date of attendance indicated a Spring 1992 enrollment.

Results from the institutional mailing and subsequent prompting efforts are shown in Table III.7. A total of 368 institutions (76.5 percent) returned information (for 4,757 (78.2 percent) of the student requests) by mail before telephone prompting began. Pre-prompting returns were comparable regardless of institutional control (public or independent). All 113 initially non-responding institutions subsequently returned the information after telephone prompting, leading to a 100 percent institution-level response rate.

Although all institutions responded, some institutions left information blank for a few of the students. Overall, a total of 5,993 (98.5 percent and all but 90 of those requested) student enrollment status updates were collected, as shown in Table III.8. This table also shows the distribution of students by institution-reported status, in total and by institutional control. A total of 3,562 students (over 59 percent of those for whom information was provided) were currently enrolled at their NPSAS:90 institution; 36 percent were not enrolled and had not completed a school program; and about 4 percent) had completed a program and graduated. Students who were still enrolled at the same school or graduated comprised a larger percentage from the independent sector, while those who had left the original school were relatively more common in the public sector.

Because enrollment status updates were requested only from institutions offering 4-year (or more) programs, and because the BPS:90/92 sample was defined as FTBs in the AY89/90, few students were expected to have completed a program of study and graduated. However, a relatively large percent of 4-year schools *also offer associate degrees or other 2- or 3-year programs*. Some of the reported graduates are therefore considered legitimate; however, others were subsequently determined to be non-FTBs. While not explicitly requested, several conscientious coordinators identified non-FTBs in their mail returns. One mail response was accompanied by a detailed letter of explanation indicating that 6 of the school's 19 BPS sample members were not FTBs during AY89/90. Although not originally planned, in subsequent telephone prompting, institutions were asked to indicate non-FTB status, if known, rather than one of the three enrollment categories. The non-FTB categorization is, consequently, also shown in Table III.8.

6. Intensive Tracing

Cases unlocatable in CATI after all provided or uncovered tracing telephone numbers were either "dead ends" or exhausted[27], intensive tracing activities were implemented to locate the sample member[28]. Consistent with the overall study philosophy

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[27] A phone number that was dialed 10 successive times without reaching a person (i.e., ring without answer, busy, answering machine) was considered exhausted.

[28] Intensive tracing was sometimes initiated after initial contact, when phone numbers were disconnected or sample members moved and his/her new number was unknown by those at the old number (a fairly common occurrence at the ends of school terms) and all other previously obtained numbers were dead ends or exhausted.

Table III.7 -- Institution-Level Response for Student Enrollment Status Update

School Type	Number of Schools	Total School Receipts		Receipts Before Prompting		Receipts After Prompting	
		Number	Percent	Number	Percent	Number	Percent
TOTAL	481	481	100.0	368	76.5	113	23.5
Public	221	221	100.0	171	77.4	50	22.6
Independent	260	260	100.0	197	75.8	63	24.2

NOTE: Results are based on 481 NPSAS:90 schools with at least a 4-year level of offering, from which student enrollment status updates were requested. All percentages are based on number of schools in the category considered.

Table III.8 -- Student-Level Response Rates for Enrollment Status Updates and Institution-Reported Status

School Type	Total Student Updates Requested	Updates Received [a]		Institution-Reported Student Enrollment Status [b]							
				Currently Enrolled		Completed Program/Graduated		Left School Without Completing Program		Non-FTB	
		Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
TOTAL	6,083	5,993	98.5	3,562	59.4	232	3.9	2,178	36.3	21	0.4
Public	2,660	2,624	98.6	1,507	57.4	81	3.1	1,027	39.1	9	0.3
Independent	3,423	3,369	98.4	2,055	61.0	151	4.5	1,151	34.2	12	0.4

NOTE: Results are based on the 6,083 students in the 481 NPSAS:90 schools offering at least a 4-year program of study, for whom enrollment updates were requested.

[a] Percentages are based on total number of student updates requested.

[b] Percentages are based on students with reported enrollment status.

of concentrating CATI staff efforts on interviewing, these additional locating activities were accomplished by a separate staff. The intensive tracing operation was quite instrumental in obtaining the high overall contact/resolution rate realized in this study[29].

When verified numbers were obtained for the sample member, the new information (in some cases including locator comments[30]) was loaded into the CATI file and the case was reactivated for CATI interviewing. These files were generally processed on a weekly basis; however, cases which required immediate follow-up in CATI (e.g., "Call before Thursday, because I'm going to Germany for the summer.") were handled on a daily basis by the most experienced CATI interviewers, using hard copy tracing information printed from the CELM.

Intensive tracing staff were provided with information for all cases untraced in CATI, except those identified during the last 3 weeks of data collection (for whom turnaround time was no longer sufficient for reasonable success in applying the intensive trace procedures). During the active CATI interviewing stage, 1,401 cases were identified as needing intensive trace (13.2 percent of the CATI sample); intensive trace was initiated for the 1,373 of these identified before the last three weeks of data collection[31]. Intensive trace was initiated for new batches of cases from CATI on a routine weekly basis.

The progression and applicability of tracing steps was potentially different from case to case as the type and amount of information that was available varied. The diversity of intensive tracing steps, and the outcomes associated with the various steps and procedures are shown in Table III.9. For about two thirds of the intensive trace cases, new telephone numbers were obtained, old numbers verified, or the case otherwise resolved to appropriate completion. (It should be noted that the outcomes presented in Table III.9 -- and discussed below -- are specific to CATI-External locating, and do not include subsequent CATI dispositions.)

The usual order of steps was based on cost-effectiveness, with the least expensive steps being examined as first options. Consequently, one of the first operations, accounting for successful tracing in slightly less than 5 percent of the total cases, was a check for late pre-CATI mail completion numbers (which had not been previously attempted by the CATI interviewers).

Subsequent steps typically followed a complete review of CATI outcomes and overall tracing history by locators to evaluate the currency and relative usefulness of the various addresses and phone numbers. CATI dispositions and interviewer comments for each phone number attempted usually provided a clear picture of the prior CATI activities and were

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29 Contact/resolution means that the student was either successfully contacted by a CATI interviewer or that a contact with someone known to the student enabled the interviewers to otherwise resolve the case (i.e., student was out of the country, deceased, unavailable during the survey period, a non-FTB, etc.).

30 This information communicated case details which, for instance, warned the CATI interviewers of potential refusals, and suggested particular days and times at which the BPS student was most easily contacted.

31 An additional 14 cases from the two test samples, of 50 cases each, were identified for, and subjected to, intensive trace (a comparable 14 percent intensive trace rate).

Table III.9 -- Intensive Tracing Steps and Final Student-Level Outcomes

Intensive Tracing Outcome	Frequency	Percent
Total from CATI for Intensive Tracing [a]	1,373	100.0
Student Phone Number Obtained [b]	809	58.9
Source of Student Phone Number:		
CBI Address or Employer Information Obtained	166	12.1
Rejected CATI Student Phone Number Re-verified	134	9.8
Locator Source at Rejected CATI Phone Number	97	7.1
Institution (Student Enrolled)	78	5.7
Directory Assistance Search on Local/Permanent Address	67	4.9
Directory Assistance Search on Parent/Other Address	63	4.6
Late Pre-CATI Student or Parent/Other Mail Return	62	4.5
Post Office Updated Forwarding Address	52	3.8
TRW Address Information Obtained	42	3.1
Institution (Student Not Enrolled)	33	2.4
Other Method	15	1.1
Case Otherwise Resolved	96	7.0
Type of Resolution:		
Student Unavailable During Survey Period [c]	41	3.0
Student Has No Phone [c]	35	2.5
Student is Non-FTB	12	0.9
Reactivated through Student Call-in to CATI WATS Line	8	0.6
Case Not Located (No Final Student Phone Number) [d]	468	34.1
Final Case Outcome:		
Student is Not Locatable	366	26.7
Non-Published Number/Confirmed or Updated Address Obtained	95	6.9
Contacts Refused to Provide Phone Number	7	0.5

NOTE: Statistics based on the 1,373 cases activated for Intensive trace; all percentages are based on this total.

[a] An additional 28 cases were identified as needing intensive trace so late in the data collection window that they were not activated.

[b] Ten of the cases in this group were subsequently identified or modelled as exclusions.

[c] In addition to the 8 call-ins, 1 additional case in this group was subsequently contacted in CATI; 4 additional members of this group were subsequently modelled as non-FTB.

[d] Four cases in this group were subsequently contacted in CATI; another 44 were modelled as non-FTBs.

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frequently helpful in identifying additional potential locating leads and clues. Based on the review of the case information, locators established the plan for subsequent calls. The relative frequency of methods used is shown in Table III.9.

Because of the institutional burden involved and past experience with low success rates, requests to NPSAS:90 schools for tracing information on students no longer enrolled was deferred until the latter steps of this locating effort. Locators investigated the availability of tracing clues such as transfer information, job placement information, student name changes, and social security number corrections. "Other" tracing approaches used included voter registration, divisions of motor vehicles, and other public records.

As shown in Table III.9, 905 cases (about 66 percent of the 1,372 sent to intensive trace) were either located or otherwise resolved. Of the 904, 809 (about 60 percent of the total) were returned to CATI with new or verified telephone numbers. The 96 "otherwise resolved" cases included: (a) 7 students who called the CATI WATS number during intensive trace, (b) 35 determined to have no phone, (c) 41 determined to be unavailable for the duration of the survey period (e.g., out of the country), and (d) 12 identified as non-FTBs.

No final student phone number (or other resolution) was obtained for 468 (34 percent) of the intensive locating cases. The bulk of these cases, 366 (over one fourth of the total) represented cases that simply could not be located during the time frame of the process and using the existing "central office" tracing procedures. The locators updated or confirmed the student address in another 95 cases, but the phone number was unlisted and was unavailable through directory assistance and all other sources contacted. Finally, 7 cases were unresolved due to refusal by student and/or tracing sources.

A more realistic yardstick for examining intensive trace results is the subsequent resolution of these cases in CATI. The "CATI resolution rate" indicates the success of intensive tracing in subsequent CATI operations, thus reflecting some fortuitous outcomes unrelated to the tracing *per se* (e.g., cases modelled as non-FTBs). It also reflects moves and other events in the sample members' lives that shifts him/her back into an unlocated state, errors (e.g., out-of date, deliberate falsifications, keying mistakes) in the numbers thought to be current and correct, as well as effectiveness of the subsequent CATI operations.

CATI resolution outcomes by type of NPSAS:90 school are provided in Table III.10. Intensive trace effectiveness using this outcome is somewhat reduced, and shows some clear effectiveness differences as a function of school type. In addition to differences in CATI resolution, it can also be seen that percentages of cases *needing* intensive tracing also differed by type of NPSAS:90 school from which they were sampled. Higher proportions of students from less than 2-year schools (22 percent) required this additional locating activity and lower proportions (9 percent) needed intensive trace if they had been sampled from schools offering at least a 4-year program. The fraction of students from 2- or 3-year schools who required intensive trace (15 percent) approximated the overall average.

Table III.10 -- Intensive Trace Activation and Resolution Rates by Level and Control of NPSAS:90 School

Level of Offering	Control	Total Sample	Intensive Trace Activated		Contacted or Resolved [a]	
			Number	Percent [b]	Number	Percent [c]
All Levels	Total	10,624	1,373	12.92	772	56.23
	Public	4,378	481	10.99	285	59.25
	Independent	3,995	380	9.51	254	66.84
	Proprietary	2,251	512	22.75	233	45.51
< 2 Year	Total	1,939	432	22.28	196	45.37
	Public	348	62	17.82	32	51.61
	Independent	126	22	17.46	14	63.64
	Proprietary	1,465	348	23.75	150	43.10
2-3 Year	Total	2,700	403	14.93	220	54.59
	Public	1,409	187	13.27	104	55.61
	Independent	505	52	10.30	33	63.46
	Proprietary [d]	786	164	20.87	83	50.61
4 + Year [e]	Total	5,985	538	8.99	356	66.17
	Public	2,621	232	8.85	149	64.22
	Independent	3,364	306	9.10	207	67.65

[a] Resolution included determination that student: (1) was unavailable during survey period, (2) had no phone number, or (3) was not an FTB.

[b] Percent based on row total.

[c] Percent based on number for whom trace was activated.

[d] Proprietary schools offering more than 3-year programs are also included in this category.

[e] Includes schools offering graduate-level programs as well as those that do not; proprietary schools are not included at this level of offering.

A similar inverse relationship with level of offering exists for subsequent CATI resolution of those needing intensive trace. (The cumulative effect is, therefore, double-barrelled; sample members from schools with lower levels of offering need extensive trace in greater relative numbers, *and* of those needing trace, those in these types of schools are less likely to be located.) This overall trend holds over applicable offering levels within the public and proprietary control sectors; however, independent schools, which yield the highest CATI resolution rate within any offering level considered, show considerably less variation over level of offering categories. Intensive trace cases selected within NPSAS:90 proprietary schools had the lowest CATI resolution rate within both of the applicable level of offering categories[32].

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[32] Locating proprietary students was complicated further due to the higher relative frequency of these students reported to have no phone.

One possible reason for lower contact/resolution rates for students who were selected into the NPSAS:90 sample from the less than 4-year schools is the fact that such students were typically no longer enrolled in those schools. If current enrollment status is in fact a contributing factor, a similar finding should be observed for the students from 4-year schools who were no longer enrolled there.

Table III.11 summarizes CATI trace activation rates and resolution outcomes by institution reported enrollment (for students originally sampled from schools with at least a 4-year program). Activation rates are, in fact greater (by 5 percentage points or more) for students no longer enrolled (both those who completed their program and those who did not). Contact/resolution rates, among those activated, partially mirror this finding. A major exception is that *those who completed their program and graduated were contacted/resolved at higher rates than those still enrolled.* (A large part of the exception finding is somewhat artifactual, related to the fact that a disproportionate number of the graduates were resolved as out of the country or modelled as non-FTBs.) When the two no-longer-in-school groups are averaged, however, intensive trace was demonstrably more successful (in terms of subsequent CATI resolution) for students who were still enrolled.

Implications of these findings for intensive trace in subsequent follow-up studies of this BPS cohort are somewhat mixed. For those who were contacted and completed through Section J of the interview, the enhanced locating information obtained should increase the likelihood of contact in the future, even within this mobile population. For those without full interviews and particularly for those not contacted, the need for intensive tracing should increase and the likelihood of contact/resolution should diminish.

Table III.11 -- Intensive Trace Activation and CATI Resolution Outcomes by Current Enrollment Status

Student Current Enrollment Status [a]	Number of Students	Trace Activated		Contacted or Resolved [b]	
		Number	Percent [c]	Number	Percent [d]
Total	5,879	538	9.15	356	66.17
Currently Enrolled	3,506	234	6.67	169	72.22
Completed Program & Graduated	217	25	11.52	20	80.00
Not Enrolled/Not Completed Program	2,156	273	12.66	163	59.71

Note: Restricted to students sampled from institutions offering at least 4-year programs. Statistics are based on the 5,879 such students for whom the institution provided definitive enrollment status information for the 1991-92 school year; the 19 students whom the institutions identified as non-FTBs are not included.

[a] Institution reported enrollment status at the NPSAS:90 school between December 1991 and June 1992.

[b] Resolution included determination that student: (1) was unavailable during survey period, (2) had no phone number, or (3) was not an FTB.

[c] Percent based on row total.

[d] Percent based on number for whom trace was activated.

The need for some sort of "more intensive" tracing prior to CATI is certainly suggested for those who could not be located or contacted during the current study; this could involve field tracing, if that is cost feasible. There also is a need to revise rules for identifying cases for post-CATI intensive trace (which could also contain additional efforts) sooner. Even with a data collection window of over 20 weeks, some cases needing intensive trace were not activated because they were identified so late in the process.

7. Efficiency of All CATI-External Tracing Activities

Table III.12 shows the overall yield among contacted cases of all CATI-external operations (plus the NPSAS:90 locator file), using *unduplicated*, case-level conditional (on total contacted group of 9,763) contact rates. Nearly 2,000 (20 percent of those contacted) were contacted at numbers obtained *only* from NPSAS:90 locator files. Unique contributions from the CATI external activities were markedly less, but expectedly so since they were activated/realized for only subsets of the study sample. Of particular note is the fact that only about one-third of the contact numbers were obtained from a single source (as shown in Section III.B.4 greatest redundancy was between NCOA and NPSAS:90 data).

Generally, redundancy among sources suggests inefficiencies in the locating process; however, "confirmation" was a stated goal of the pre-CATI tracing activities. Redundancy also is differential depending on the order in which successive operations are performed. NPSAS:90 locating phone numbers precede all BPS:90/92 operations; thus, that source should be taken as a beginning and others evaluated in terms of unique additional contributions.

Marginal contribution of the tracing activities is shown in Table III.13, with 7 sub-tables of possible tracing activity sequencing given NPSAS:90 information (accounting for about 54.3 percent of the contacted cases). Unique sequential contribution of locating activities (Δ%) as well as cumulative percentages (Cum. %) are shown. Marginal increases differ, depending on the order in which an activity is performed. Intensive tracing is assigned as the final activity (as it logically represents the final CATI-External locating activity performed) in all but one sub-table, "G", which reflects the contribution of the parent/other mailing exclusive of all other sources. Bottom line totals in all cases are slightly greater than 70 percent; the remainder of contacted cases were realized through tracing activities of the CATI interviewers (albeit frequently using numbers from listed sources as starting points).

Table III.12 -- Unique Contributions to CATI Contact from Specified Sources

Source of Unique Phone Number Leading to CATI Contact									
NCOA		Parent/Other		Student		Intensive Trace		NPSAS:90	
Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
132	1.3	436	4.5	243	2.6	456	4.6	1,964	20.1

NOTE: Percentages are based on the 9,763 cases with whom contact was made; this total (and associated counts) include cases in the CATI sample and test samples as well as contacted cases subsequently lost through moving and/or number going bad.

Table III.13 -- Relative Contribution of BPS:90/92 Tracing Activities by Order of Implementation

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
NCOA	1.86	56.14
Student	5.26	61.40
Parent/Other	4.50	65.91
Intensive Trace	4.67	70.57

A

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
NCOA	1.86	56.14
Parent/Other	6.83	62.97
Student	2.94	65.91
Intensive Trace	4.67	70.57

B

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
Student	5.45	59.72
Parent/Other	4.82	64.54
NCOA	1.36	65.91
Intensive Trace	4.67	70.57

C

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
Student	5.45	59.72
NCOA	1.68	61.40
Parent/Other	4.50	65.91
Intensive Trace	4.67	70.57

D

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
Parent/Other	7.25	61.52
NCOA	1.44	62.97
Student	2.94	65.91
Intensive Trace	4.67	70.57

E

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
Parent/Other	7.25	61.52
Student	3.02	64.54
NCOA	1.36	65.91
Intensive Trace	4.67	70.57

F

Source Order	Δ%	Cum. %
NPSAS:90	54.27	54.27
NCOA	1.86	56.14
Student	5.26	61.40
Intensive Trace	4.72	66.12
Parent/Other	4.46	70.57

G

NOTE: Incremental unique percentage point increase is indicated as "Δ%", cumulative percentage of contacted cases accounted for is indicated by "Cum. %". All percentages are based on 9,763 cases with whom contact was made, including cases in the CATI sample and test samples as well as contacted cases subsequently lost through moving and/or number going bad.

Unique marginal contributions from NCOA are not impressive regardless of the order in which it is performed; however, returns from the parent/other and student mailings are more impressive (particularly in light of the low overall return rates for these operations). To address efficiency of the various tracing sources, consideration should be directed not only to the order in which they are performed but also to costs involved.

Table III.14 shows total variable costs associated with completing the various BPS:90/92 CATI-external tracing activities as well as a cost per unique contact for each activity. Results reveal that NCOA supplied unique CATI contact numbers at the lowest cost, approximately $36. As the vast majority of NCOA-provided CATI contact numbers were non-unique (generally redundant with NPSAS:90 contact numbers), the overall utility of these data was reduced; however, total costs associated with the source were extremely low. The total variable parent/other, student, and intensive tracing costs were substantially higher. All such costs are data collection labor loaded and included either printing and mailing costs or telephone toll charges. Despite high unit costs, it is important to recall that this step was implemented only after exhausting all other potential leads available in CATI. Consequently, there seems to be no justification for eliminating that effort.

Table III.14 -- Total and Unit Variable Costs for Unique Contact Numbers for Each BPS:90/92 CATI-External Tracing Activity

	Tracing Activity			
	Parent/Other	Intensive Tracing	Student	NCOA
Total Variable Costs (A)	$16,978	$25,667	$12,922	$4,779
Total # of unique CATI contacts (B)	436	456	287	133
Cost per unique CATI contact (A)/(B)	$38.94	$56.29	$45.03	$35.93

C. CATI Set-up and Basic Operations

1. Set-up Procedures

CATI set-up operations involved: (a) preloading into the CATI record certain NPSAS:90 data elements for use as prompts and checks in interviews; (b) preloading phone numbers and updated/confirmed addresses of the sample member and previously identified tracing sources (for verification or additional updating as needed in the longitudinal locating section of the interview); (c) preloading the calling block of up to 4 prioritized telephone numbers (with associated source and recency codes as well as names and relationships to the sample member -- for use in preliminary CATI locating); (d) developing coding dictionaries

for on-line IPEDS and Course of Study coding; and (e) initializing the calling plan for sample members within the CATI scheduling system. Development activities associated with the preloads and coding dictionary have been previously discussed in Section III.A.

Initial coding dictionary work was accomplished about 4 weeks prior to CATI operations and coding systems were then tested; some further additions to the dictionaries were made as a result of the testing. (Additions to the dictionary were also made during CATI operations, as new alpha entries or cross listings were encountered.)

Preload files for NPSAS:90 data elements and for the longitudinal locating section of the interview were completed about three weeks prior to data collection, and information from the initial (pre-CATI) tracing stage, including prioritized telephone numbers and updates to the locating section preloads, was available for most sample members one week before the beginning of CATI operations. Calling numbers and longitudinal locating information were subjected to a variety of edit checks (e.g., completeness of information, valid ZIP and area codes). After passing these checks, the data were merged with the NPSAS:90 full-scale preloads and passed along to CATI in ASCII format; a listing of all preload variables is provided in Table G.24 (Appendix G). At time of preload, the time for initial call (within the overall calling plan schedule) was initialized to either weekend, week night, or week day (in approximately the ratio 3::3::1)[33].

Because the longitudinal locating section updates (obtained during pre-CATI tracing) required considerable file work, those cases were not immediately available for preload. Similarly, cases failing edit checks were not available until the error could be resolved. Consequently, CATI preload was accomplished in several waves. To facilitate initiation of CATI operations, the cases requiring updating or error check resolution were set aside, and CATI input records were generated for the remainder. As a consequence, the initial CATI file did not include records for all potential sample members; nonetheless, sufficient cases were available for initiation and continuation of CATI operations, even with the large number of interviewers working.

Preloads were actually incorporated into CATI in four separate waves. The first and largest wave was preloaded on February 14th and consisted of 5,900 cases. The second wave of 2,949 cases was loaded on March 3rd; the third (565 cases) on March 27. The final wave (1,077 cases) was loaded on April 15th; this last wave consisted of all cases in one of the "suspect" groups (suspected upper level students) who had been held back until group FTB rate could be estimated.

In total 10,591 cases from the original sample of 11,700 were loaded into CATI. Thirty-three cases were determined, during the pre-CATI tracing activities, to be "out-of-scope" for the BPS:90/92 survey (i.e., those identified as non-FTBs, institutionalized, incapacitated, deceased, or otherwise unavailable during data collection). The additional

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[33] The specific ratios used reflected: (a) the start of operations on a weekend, and (b) higher likelihood of contact and lower telephone toll charges on weekends and week nights (also reflected in heavier staffing of these shifts).

1,043 cases not loaded were from the excluded suspect groups (suspected graduate students and suspected first professional students), estimated to have very low FTB rates in the associated test samples.

2. Overview of Interview System and Operations

Operations involved a two-stage CATI program. The first stage allowed interviewers to sequence through the provided telephone numbers in an attempt to reach the sample member (or someone who knew how to reach the sample member); additional phone numbers (and names) could be added to the preloaded roster at this stage. Once a telephone number was reached at the sample members residence (or in some cases place of work), the second stage program, consisting of the actual interview, was initiated. A facsimile of the interview is provided in Appendix C.

The CATI system provided a hierarchy of telephone numbers for contacting plus automatic scheduling based on a survey-customized scheduling algorithm. CATI system development exploited the features of directing the interview through the most efficient routing with appropriate skips, immediate consistency checks, and conversationally-based, personalized interviewing. All CATI locating and interviewing were subjected to a 10 percent quality control silent monitoring procedure. Detailed calling records were maintained in the system for each case and for each telephone number within case; these records contained the time and date of each contact attempt, a code indicating the result of the attempt, interviewer ID number, and interviewer comments (if appropriate).

CATI operations were initiated in mid-February 1992 and lasted into the fourth week of July of that year. The data collection period lasted three weeks longer than originally anticipated in order to insure adequate response rates. The interviewing of test samples (from suspect groups) was conducted as part of regular operations (these cases were identified by a special code in the CATI file and administered only that potion of interview Section A related to FTB determination) and commenced at the same time. Because this operation involved the (realized) potential for adding additional cases to the production interviewing, test sample cases received scheduling priority; consequently, the interviewing was sufficiently complete to make reasoned decisions by mid-April[34].

An additional CATI operation, reliability interviews, was ongoing simultaneously. A shorter interview was used for this operation, a facsimile interview for which is provided in Appendix C. Random selections for reliability reinterviews were made during production interviewing. Because selection rates were small, however, sufficient sample size to support the reinterview operation was not achieved until late March. Reliability interviews were initiated in early April and completed by the end of June[35].

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[34] To determine more accurate FTB rates (for subsequent weighting), FTB rate determination interviewing continued through May for test samples from the two suspect groups excluded from the fielded sample.

[35] Because of the necessary lag in reliability reinterviewing, oversampling respondents during the earlier portion of production interviewing was necessary; as a result, the reliability sample was completed by mid-May, and reliability interviews were actually completed prior to completion of production interviewing.

Associated with CATI operations was a remailing of student prenotification material (Appendix A) to sample members who reported during the interview that they did not receive the original mailing *and* who indicated they required the material prior to continuing the interview[36]. Copies of cover letters used for the remailing are provided in Appendix D. Only about 137 remailings were required; this number is actually less than the number experienced in the field test (which was conducted on a sample about one-eighth smaller) due to changed procedures[37]. Hesitant respondents (and in some cases tracing sources) were also provided with a toll-free number to use to telephone senior project staff; however, fewer than 30 such calls were received during the course of the study.

Once contact was made with a sample member, an attempt was made to complete the interview immediately. If this was not possible, the interviewer made an appointment to call back for the interview at a time convenient for the sample member. For all appointments, the CATI system scheduler later assigned the case to an interviewer at the appointed time (correcting for respondent-local time).

Considerable effort was expended in attempting to avoid "refusals" to participate and/or to convert prior refusals. A set of answers to commonly expressed respondent concerns were provided to all interviewers for use in forestalling initial refusals. Once initial refusals were experienced, however, the interviewer was required to enter comments into the case documenting the nature and suspected reason for the refusal. Sample members who had refused two regular interviewers, were "flagged", and their CATI record was moved to a special queue accessible only by a group of well-experienced interviewers, skilled in refusal conversion.

If none of the telephone numbers (preloaded or generated) resulted in contact with a sample member, his/her CATI record was placed in inactive status while CATI-external intensive tracing activities were implemented (see Section III.B.6)[38]. If intensive tracing was successful, new calling information blocks were loaded and the case again activated.

3. Non-FTB Determination

Considerable effort was directed toward ensuring that the sample for BPS:90/92 contained appropriate members (i.e., AY89/90 FTBs). As indicated previously (Section II.A), the preliminary sample contained relatively large numbers of individuals with questionable status as FTBs. Non-FTBs were identified in almost every phase of the data collection

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[36] Some remailings were also prompted during CATI trace, when a located tracing source would refuse to reveal the sample member's whereabouts until receiving information about the study.

[37] During the field test, remail was offered to sample members as an explicit option. Analyses suggested that a number of sample members were requesting remails as an "easy out" from completing the interview (e.g., they were never home again after the remailing); consequently, remailing in the full scale study was required only if the sample member explicitly requested it, without a prompt from the interviewer.

[38] These additional efforts included checks of cross-reference directories (such as the Haines Criss-Cross Directory), checks with the NPSAS:90 institution, credit bureau checks (using either TRW or CBI), and tracking through state Departments of Motor Vehicles.

process. A small number of non-FTBs (N = 34) were serendipitously identified in the various locating activities. Additionally, 2,486 non-FTBs were identified during interviewing[39]. Additional non-FTBs were identified within the test samples from suspect groups that were not subsequently included in the CATI sample. Finally, 169 nonrespondents were modelled as non-FTBs on the basis of congruence of their NPSAS:90 data with the NPSAS:90 data for non-FTBs identified during interviewing.

In all areas of FTB determination, care was taken to minimize both false positive and false negative rates. For purposes of this study, *false positives were defined as non-FTBs included in the sample* and *false negatives were defined as FTBs excluded from the sample*. A false negative (reflecting exclusion) was deemed more problematic than a false positive; consequently, non-FTB status rules were generally quite conservative (i.e., minimizing false negative rate was given considerably heavier weight in the process). Because cases were excluded on the basis of group membership or modeling, final BPS:90/92 weights were inflated to account for the expected population loss due to excluded false negatives (see Section V.B).

Inclusion/exclusion decisions, based on test sample results, were required in sufficient time to complete locating/interviewing within the data collection window. Final results from the test samples are provided in Table III.15. On the basis of the results to that time and in consultation with NCES, decisions were made nine and one-half weeks into the data collection period to exclude all of the suspected graduate student and suspected first professional student groups (including the two identified FTBs in the graduate student test sample) but to include all members of the suspected upper level student group in the CATI sample (including the seven identified FTBs in the test sample)[40]. This resulted in the exclusion of 1,076 of the potential sample of 11,700, and a CATI sample of 10,624.

The estimates of false negative rates (FTB rates in excluded groups) were 0.0 percent and 4.3 percent, respectively, for the excluded suspected first professional group and graduate student group; moreover, with 90 percent confidence, full group rates did not exceed 3.2 percent and 10 percent, respectively. A much better estimate of the false positive rate (non-FTB rate in included groups) for the suspected upper level student group is possible, since the entire group was ultimately included in the full CATI locating/interviewing process. The FTB rate estimate for the full group was somewhat higher (10.5 percent unweighted and 10.1 percent weighted -- see Table III.16 below) than the point estimate for the test sample, but well within the 90 percent one-tailed upper bound shown in Table III.15; the associated unweighted false positive rate is 89.5 percent.

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[39] Determining FTB status was accomplished through a large complex of interview items (Items A.12 through A.16 of interview Section A -- see Appendix C).

[40] The decision to include the suspected upper level student group was made prior to obtaining full results for the test sample; the final FTB rate point estimate for this group, as shown in Table III.D.3.1, is markedly less than the point estimate at the time of the decision.

Table III.15 -- Final Estimates of FTB Rates in Test Samples from Three BPS:90/92 Suspect Groups

Group	Group Size	Test Sample Size	Sample Completions [a]		FTB Status		Estimated FTB Rate [b]	95% 1-Tailed Upper Bound [c]	90% 1-Tailed Upper Bound [c]
			Count	Percent	Non-FTB	FTB			
Suspected Graduate Students	766	50	46	92.0	44	2	0.043	0.123	0.100
Suspected First Professional Students	310	50	50	100.0	50	0	0.000	0.051	0.032
Suspected Upper Level Undergraduates	1,150	100	94	94.0	7	4	0.74	0.132	0.117

[a] Percent based on sample size.
[b] Rate based only on sum of cases that were determined.
[c] Using exact determination (Under Normal Approximation).

Actually, FTB rates were low (for some groups unexpectedly low) within all 5 groups in the fielded CATI sample (see Figure II.1 in the previous chapter). Weighted and unweighted FTB rates for the groups are shown in Table III.16 (weighted percentages are computed using NPSAS:90 weights). Unweighted rates range from 0.0 to over 80 percent.

As indicated in Tables III.15 and III.16, pre-CATI categorizations of the potential sample on the exclusive basis of NPSAS:90 institutional and student data were stochastically "on target". FTB rates were highest in the "likely FTB" group and next highest in the "probable FTB" (Table III.16). Both of these groups were selected within the NPSAS:90 undergraduate stratum. Possible FTBs from the NPSAS:90 first professional student stratum and suspected upper level students from the NPSAS:90 undergraduate stratum (Table III.16) yielded FTB rates between 10 and 20 percent; unlikely FTBs from the graduate student stratum (Table III.15) are estimated less than 5 percent from the test sample. None of the possible FTBs from the graduate student stratum (Table III.16) or unlikely FTBs from the first professional stratum (represented by the test sample -- Table III.15) proved to be FTBs.

Because FTB rates were lower than anticipated, non-FTB identified through interviewing during the first six weeks of data collection were subjected to a 25 percent verification through reinterview[41]. This operation identified a CATI program anomaly that

[41] All identified non-FTBs completed only that portion of Interview Section A necessary to determine their status; however, in anticipation of the possibility of recontact, such individuals were told that it may be necessary to recontact them (see Appendix C).

59 BEST COPY AVAILABLE

Table III.16 -- Weighted and Unweighted FTB Rates in the Five Distinct Pre-CATI Classification Groups Comprising the CATI Sample

Group	Number in Group	Number with Known Status [a]	FTB Rate [b]	
			Unweighted	Weighted [c]
TOTAL	10,624	9,063	72.4	70.4
Likely FTBs, NPSAS:90 Undergraduate Stratum	8,739	7,449	81.2	76.3
Probable FTBs, NPSAS:90 Undergraduate Stratum	677	579	70.5	69.2
Unlikely FTBs, NPSAS:90 Undergraduate Stratum [d]	1,150	982	10.5	10.1
Possible FTBs, NPSAS:90 Graduate Student Stratum	35	31	0.0	0.0
Possible FTBs, NPSAS:90 First Professional Stratum	23	22	18.2	15.1

NOTE: Classification Groups shown are further identified in Figure II.1.

[a] This includes FTBs and non-FTBs within indicated groups who were identified in either locating or interviewing stages (including 18 cases who completed enough of the interview to determine they were FTBs but not enough to be considered respondents); it *does not* include modelled non-FTBs.

[b] Rates are expressed as percentages based on those with known status.

[c] Weights used were NPSAS:90 final adjusted weights.

[d] Includes those in test sample and those who were not.

was misclassifying (as ineligible) individuals with a particular data signature; the anomaly was fixed and *all* previously identified ineligibles with that data signature were reinterviewed (all who were contacted had indeed been improperly classified during the initial interview).

The results of the verification also suggested some respondent/interviewer errors were causing misclassification by the CATI program. Misclassified and correctly classified non-FTBs were further examined in light of NPSAS:90 variables. Nearly all misclassifications resulted for cases identifying themselves as freshmen during NPSAS:90 or as graduating from high school in 1988 or 1989. Subsequently, *all* initially identified non-FTBs meeting either of these two conditions (including those not selected into the quality control sample) were reinterviewed to assure correctness of their initial classification. Including the quality control reinterviews, 117 of 482 reinterviews yielded FTBs that had been previously misclassified.

Because of the relative success of using NPSAS:90 data to identify misclassification corrections and in pre-CATI classifications, *post hoc* modelling was implemented in an attempt to identify non-FTBs among nonrespondents. Five NPSAS:90 variables were used in the modelling: (a) prior receipt of bachelor's degree, (b) year in college, (c) type of program enrolled in, (d) self-reported undergraduate level, and (e) high school graduation year. Modelling procedures were applied separately within each of the five pre-CATI classification groups (identified in Table III.16).

For the first three listed groups (all originally sampled into the NPSAS:90 undergraduate student stratum), joint distributions of these variables, among known (through interviewing) FTBs and Non-FTBs, identified discreet regions in the dataspace with high concentrations of non-FTBs. Rules predicting non-FTB status (and the resultant estimated false positive and false negative error rates) were developed based on these concentrations. The developed (group specific) rules were then applied to the non-respondents within the applicable group. The final two groups (potential FTBs selected into the NPSAS:90 graduate student or first professional student stratum) were too small for such a modelling approach. Because of the extremely low FTB rates in these groups (see Table III.16), all nonrespondents in the groups were modelled as non-FTBs.

Non-FTB modelling results, overall and within pre-CATI category, are shown in Table III.17. The table indicates the number of cases and percent of non-FTBs in the model base, the number modelled as non-FTB, and the estimated false positive and false negative rates. The System Operating Characteristics of the modeling approach are bounded by the FTB and non-FTB rates within the know groups. Under rational modelling approaches, the minimum possible false positive rate (which is zero -- obtained by excluding all cases) also yields the maximum possible false negative rate (which is the FTB rate within the group).

Table III.17 -- Results of *Post Hoc* Non-FTB Modelling Procedures

Group	Group Size	Cases in Model [a]	Percent Non-FTB [b]	Number Predicted Non-FTB [c]	False Negative Rate [d]	False Positive Rate [d]
TOTAL	10,624	9,063	27.6	169	NA [e]	NA [e]
Likely FTB, NPSAS:90 Undergraduate Stratum	8,739	7,449	18.8	36	13.0	17.7
Probable FTB, NPSAS:90 Undergraduate Stratum	677	579	29.5	18	10.4	19.9
Unlikely FTB, NPSAS:90 Undergraduate Stratum	1,150	982	89.5	110	4.1	78.9
Possible FTB, NPSAS:90 Graduate Student Stratum	35	31	100.0	4	0.0	0.0
Possible FTB, NPSAS:90 First Professional Stratum	23	22	81.8	1	18.2	0.0

[a] Cases for whom FTB status had been determined (as a result of interviewing or locating). The number of cases to which the model was applied is the group size minus this value.

[b] Based on cases in model, for whom FTB status had been determined.

[c] When applying the model to those not in the model; this is the group to which the false negative rate applies. Subtracting the sum of this value and number of cases in model from group size yields the number retained in the sample, who were implicitly predicted as FTBs and to whom the false positive rate applies.

[d] As determined when group-specific non-FTB prediction rates were applied to cases in the model.

[e] Estimated false negative and false positive rates are applicable only to specific groups, since all prediction rules were group-specific.

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Conversely, the minimum false negative rate (again zero -- by excluding no one from the sample) also yields the maximum false positive rate (the non-FTB rate, or 100 - FTB rate)[42].

Rates estimated as a result of the modeling generally suggest improvements over the extreme values (while maintaining acceptably low false negative rates). In particular, false negative rates are typically lowest within groups for which the number of modelled non-FTBs is greatest. As indicated in false positive column of Table III.17, a small percentage of Non-FTBs are expected to remain among the residual groups of nonrespondents.

Final non-FTB determination for the fielded sample, collectively and separately for identified and modelled non-FTBs, is shown in Table III.18, by NPSAS:90 institution type. The high overall non-FTB rate suggests weaknesses in the NPSAS:90 instrumentation for

Table III.18 -- Identified and Modelled Non-FTB Rates by NPSAS:90 Institution Type

Level	Control	Total Identified or Modelled	Non-FTBs					
			Total		Identified		Modelled	
			Count	Percent	Count	Percent	Count	Percent
Total	Total	9,232	2,689	29.13	2,520	27.30	169	1.83
	Public	3,909	1,160	29.68	1,087	27.81	73	1.87
	Independent	3,541	884	24.96	811	22.90	73	2.06
	Proprietary	1,782	645	36.20	622	34.90	23	1.29
Less Than 2 Year	Total	1,533	583	38.03	560	36.53	23	1.50
	Public	289	102	35.29	96	33.22	6	2.08
	Independent	100	46	46.00	44	44.00	2	2.00
	Proprietary	1,144	435	38.02	420	36.71	15	1.31
2-3 Year	Total	2,309	731	31.66	703	30.45	28	1.21
	Public	1,223	409	33.44	398	32.54	11	0.90
	Independent	448	112	25.00	103	22.99	9	2.01
	Proprietary [a]	638	210	32.92	202	31.66	8	1.25
4 + Year [b]	Total	5,390	1,375	25.51	1,257	23.32	118	2.19
	Public	2,397	649	27.08	593	24.74	56	2.34
	Independent	2,993	726	24.26	664	22.19	62	2.07

NOTE: Statistics are based on 9,232 students for whom FTB status was determined or modelled (not all cases with determined status were interview respondents); all percentages are based on row totals. A 2 by 8 chi-square test for independence of level/control and FTB rate yielded a significant difference by level and control of NPSAS institution (χ^2=130.35, df=7, p<0.0005).

[a] Some proprietary schools included at this level offer programs in excess of three years.

[b] Includes schools offering doctoral, first professional, and other graduate programs as well as those that do not; proprietary schools are not included at this level.

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[42] False positive and negative results for the last two groups of Table III.17 are obviously based only on these extreme values for known FTBs and non-FTBs within the groups, given the marginal modelling possible.

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identifying FTBs. Significant differences[43] also exist for non-FTB rates among the PSE sectors of the base year school. Non-FTBs occurred most frequently in the less than 2-year schools and next most frequently in the 2- to 3-year schools[44]. Also, within each applicable level of offering category, non-FTBs are most frequently identified within proprietary schools. This probably reflects differential lack of institutional information on prior schools attended between the sectors. Modelled non-FTBs generally represent a larger fraction of the total identified or modelled group within institutions offering at least a 4-year program; this reflects the fact that better model prediction was achieved within such institutions.

4. Overall CATI Locating and Response Rates

a. Locating/Contacting Results

The flow and overall outcomes of all locating/contacting activities (during CATI operations and CATI-external tracing operations, where required) are shown in Figure III.1[45]. During the locating activities (and post-CATI non-FTB modelling), a total of 383 sample members were identified as "exclusions"; namely those identified as either: (1) not requiring contact due to ineligibility or non-FTB status (N = 134), or (2) impossible/infeasible to contact by telephone during the data collection period (N= 249). The latter group was comprised of those who: (1) were deceased, incapacitated, or institutionalized, (2) had no telephone[46], or (3) were travelling, out of the country, or otherwise unavailable by telephone during the survey period. Discounting exclusions, 9,528 members of the fielded sample were located and 713 were not, *yielding a raw overall locating rate of 93.0 percent.* Among those not located, however, only 568 are projected as study eligible (using estimated post-modelling FTB rate for the residual group). Further discounting projected ineligibles in the unlocated group, *locating rate among applicable sample members is estimated as 94.4 percent.*

Most located cases (8,853; 93 percent of the total located) were contacted during basic CATI operations, using the phone numbers originally loaded into CATI plus any additional numbers obtained from contacted sources at those initial numbers (and/or additional numbers obtained through directory assistance in identified locales). The remainder required implementation of a CATI-external intensive trace procedure (see Section III.B.6).

As shown in Figure III.1, 812 cases were located in intensive trace (58 percent of those identified as needing such trace); however, only 675 of these were ultimately located in

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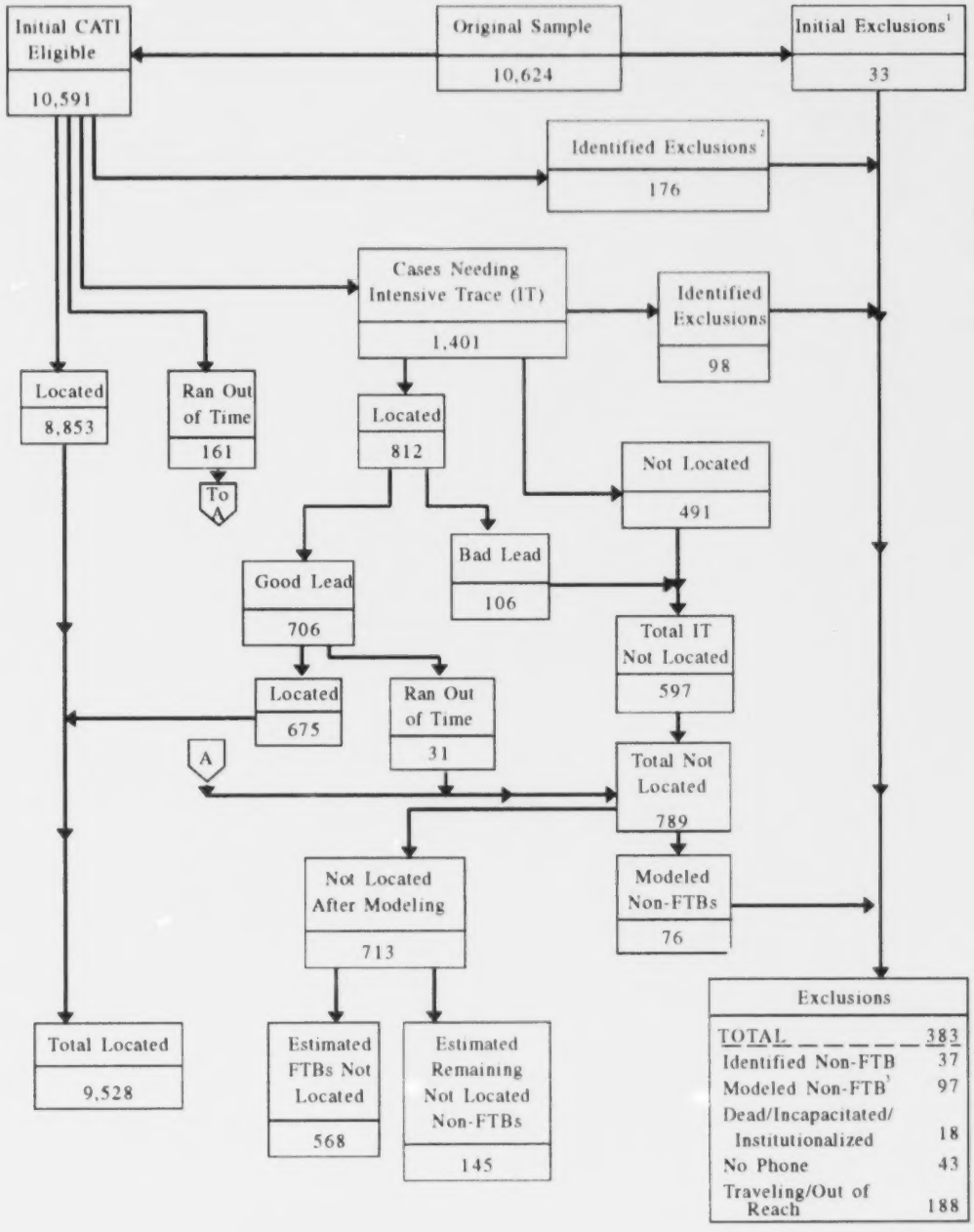
[43] A Chi Square test of independence computed on the 8 by 2 joint frequencies of level/control and FTB/non-FTB yielded: $\chi^2 = 130.35$, df = 7, $p < .0005$.

[44] Even though a small level-by-control interaction is suggested, the "highest offering category" trend holds regardless of institutional control.

[45] Contact is defined as speaking with the sample members by phone or reaching someone at a telephone number, who identifies that number as sample member's residence or place of work.

[46] For those in this category, messages were left with the contacted individual requesting that the sample member call into the toll-free number for the study; however, response to the requests was not overwhelming -- two (of the total of 45 identified) called in for an interview.

Figure III.1--Result of Flow Locating/Contacting Activities



[1]These cases were identified through feedback from mailings-institutions, parents, knowledgeable others, and/or sample member.
[2]Forty-two of these cases were identified after initial loading of 10,591 cases into CATI.
[3]Twenty-one of the previous exclusions were also modeled as Non-FTBs.

CATI. The relative success (i.e., CATI contact) of the intensive tracing was reduced as a result of the amount of time needed to identify and subsequently locate such cases within the fixed time window of data collection. For referral to intensive tracing, all CATI internal telephone numbers must have been exhausted[47], which frequently took a considerable amount of time (particularly for cases in which long sequences of calls to a number resulted in no individual contact -- e.g., ring-no-answer, busy, and answering machines). Also, by the time some cases were identified for intensive trace, traced through that process, reloaded in CATI, and called, they were often again unavailable (having left school after the Spring term in many cases).

Locating/contacting rates were related to two examined factors: type of NPSAS:90 school and current enrollment (obtained only for those initially enrolled in 4-year NPSAS:90 schools). Contact as a function of NPSAS:90 school type is shown in Table III.19. Overall

Table III.19 -- Contacting Rates by NPSAS:90 School Type

Level	Control	Number of Students	Number Contacted [a]	Percent Contacted [b]
All Levels	Total	10,156	9,443	93.0
	Public	4,212	3,966	94.2
	Independent	3,773	3,615	95.8
	Proprietary	2,171	1,862	85.8
Less than 2 Year	Total	1,866	1,605	86.0
	Public	333	298	89.5
	Independent	122	111	91.0
	Proprietary	1,411	1,196	84.7
2- to 3-Year	Total	2,604	2,390	91.8
	Public	1,367	1,264	92.5
	Independent	477	460	96.4
	Proprietary [c]	760	666	87.6
4+ Year [d]	Total	5,686	5,448	95.8
	Public	2,512	2,404	95.7
	Independent	3,174	3,044	95.9

NOTE: Counts do not include identified "exclusions", but include interviewed and identified non-FTBs.

[a] Contact is defined as speaking with sample member by telephone or reaching a telephone identified by person answering as sample member's residence or place of work.

[b] Percentage based on applicable sample members for a given row.

[c] Proprietary schools offering more than 3-year programs are also included in this category.

[d] Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included in this category.

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[47] In the field test, a procedure was tried to reduce some of this delay. It involved identifying *potential* trace cases and continuing to work the case in CATI simultaneous with intensive trace. This caused confusion for sample members contacted by both of these operations, and about a third of the "potentials" were resolved in CATI without additional intensive trace input. Consequently the procedure was not used in the full scale study.

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and within each applicable PSE sector (except independent), contact rates increase with increasing level of offering. Also, students sampled from public and independent schools had comparable contact rates within offering level (with independents slightly higher in all cases), but those sampled from proprietary schools were consistently more difficult to locate.

One likely contributing factor for these findings may be that those in schools with higher levels of offering are more likely still enrolled in the NPSAS:90 school (and as shown below, those still enrolled were more easily located). Another correlate of ease of locating is probably differential demographics (including mobility) of the client populations for the different school sectors and offering levels. Regardless of the factors affecting rate differentials, however, NPSAS:90 school type is clearly related to location rates; consequently, school type was used in nonresponse weight adjustments (see Section V.B). The results also suggest that greater (or perhaps earlier) focus be placed on tracing the hard-to-locate groups in subsequent follow-ups of the BPS:90 cohort and in future cohorts.

Contact rates were also examined as a function of sample members' current enrollment status reported by the NPSAS:90 school (obtained only for those sampled from schools having at least a 4-year program offering); results are shown in Table III.20. Among those still enrolled or graduated, contact rates exceeded 97 percent, about 4 percentage points (significantly, $p < .0001$) greater than for those who had left the school without completing their area of study. This difference, while also useful for weight adjustment, will be of limited practical significance in future follow-ups of the BPS:90 cohort, since fewer and fewer sample members will remain enrolled in the NPSAS:90 school and, consequently, no attempts at determining enrollment status from schools is anticipated. For future BPS cohorts, however, the finding suggests areas of concentration for tracing (including extra effort in the base year and earlier/heavier focus on not enrolled populations -- which would require earlier contact with the institutions for enrollment information).

Table III.20 -- Sample Member Contact Rates by Institutionally Reported Enrollment Status in 1991-92 Academic Year

Current Enrollment Status [a]	Number of Cases [b]	Percent Contacted [c]
Total	5,610	95.8
Completed Program and Left NPSAS School	187	97.9
Still Enrolled at NPSAS School	3,389	97.1
Left NPSAS School without Completing Program	2,034	93.3

NOTE: Statistics are based on sample members from NPSAS:90 schools with 4-year (or greater than 4-year offerings for whom Academic Year 1991-92 enrollment status was reported. The combined "graduated" and "still enrolled" groups differ significantly ($p < .0001$) from the "left without graduating" group.

[a] Institutionally reported status at NPSAS:90 school between January 1992 and July 1992.

[b] Total cases shown in this table does not agree with those in Table III.19, since current status was not provided for 76 sample members.

[c] Contact is defined as speaking with sample member by telephone or reaching a telephone identified by person answering as sample member's residence or place of work.

b. Interviewing Results

Flow and results of the interviewing operation is shown in Figure III.2. Interviewing rates *conditional on contact* will be considered here, so that the two components of overall response (locating and interviewing) are not confounded; overall response rate is considered in the following subsection. An additional 85 "exclusions" were identified among the located sample members. Most of these (72) were modelled as non-FTB after completion of data collection (see Section III.C.3). One sample member was admitted to long-term in-patient therapy after initial contact; the remaining 12 cases either moved out of reach (e.g., out of the country for the summer) or had their telephone disconnected after initial contact.

Discounting exclusions, 9,011 initial sample members were fully (8,495) or partially (516) interviewed and 432 were not interviewed[48], *yielding a raw interview rate of 95.4 percent.* Further discounting an estimated 69 additional non-FTBs among the residual non-interviewed group, *estimated applicable interviewing rate was 96.1 percent.*

The bulk of those not interviewed (379) explicitly refused to participate in the study. Based on prior experience with the NPSAS:90 interview (over an hour) and the prospects of another interview with stated burden requirements of about 40 minutes, it is not surprising that some respondents were reluctant to continue study participation. Of the remainder, 2 cases represented a non-Spanish language barrier[49]; the remaining 51 were still in work when data collection ended. Well over half of these latter cases were considered implicit refusals: (1) having a history of making and then breaking interview appointments or (2) using answering machines (or other people) to screen their incoming calls[50].

Major effort was directed during interviewer training to ways of precluding initial refusals and converting those that nonetheless refused. Also, given initial refusals, a case was assigned to one of a special cadre of experienced "refusal converters", who had previously demonstrated a talent for gaining cooperation from hard-to-convince potential respondents. This refusal conversion effort was deemed quite successful, reducing the initial refusal rate by almost two thirds.

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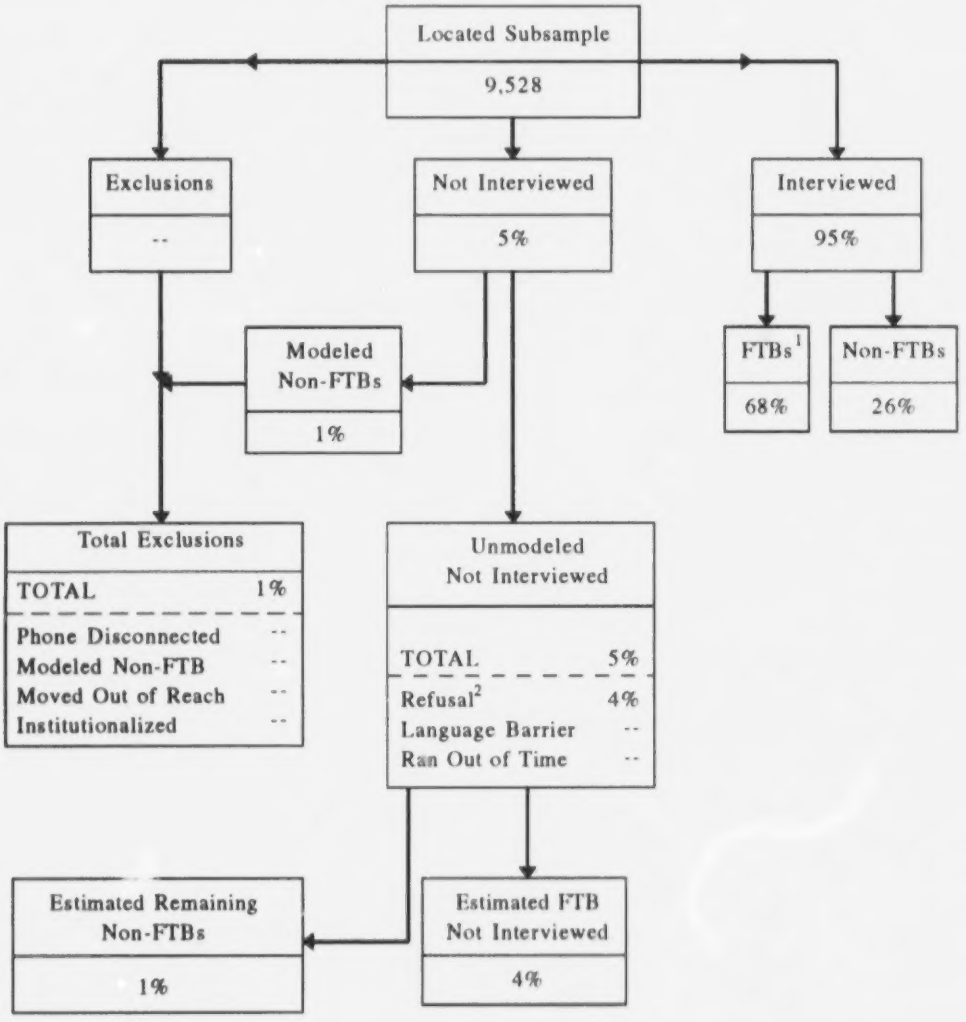
[48] For those identified as non-FTBs in the interview, the interview was terminated, and considered complete, as soon as they had completed the portion of Section A necessary for FTB determination. Partial interview was defined as minimally completing questions in Section A beyond FTB determination; by definition, partial interviews were applicable only to those determined to be FTBs. Eighteen sample members were determined eligible but did not complete sufficient additional questions to be classified as partial respondents.

[49] Spanish speaking interviewers were employed to eliminate language barrier problems among that portion of the sample selected within schools in Puerto Rico as well as additional cases (including tracing sources) identified during operations as requiring interviewer knowledge of Spanish.

[50] Only small success (about 5 percent of applicable cases) was achieved by leaving the toll free call-in number and a generic name, Pat Flanagan, as an answering machine message.

Figure III.2--Result Flow of Interviewing Activities



1 Includes partial interviews, but does not include 18 identified FTBs who completed only through the FTB-determination section.

2 Includes two hostile refusals that should not be contacted in subsequent follow-ups.

Note: All percents rounded to nearest whole percent.
--Less than .5%

Interviewing rates, given contact with the sample member, were also examined as a function of: (1) type of NPSAS:90 school, and (2) current enrollment status. As shown in Table III.21, interviewing rates were quite high and similar, regardless of NPSAS:90 school type. Using a rather liberal level of significance ($p < .01$), no contrast of rates over sector within school offering level and no contrast over offering level within school sector reached significance. (It should be noted, however, that the basic trends observed for contacting rates can again be observed in the interview rates, given contact; consequently, overall response rates -- considering both contact and subsequent interviewing -- will show significant differences, directionally similar to those shown in Tables III.19 and III.21). Also, no significant contrasts were obtained for interview rate, given contact, as a function of enrollment status; rates for all three enrollment status groups were approximately 96 percent. Again, however, the trend was identical to that observed for contact rates (highest for graduates and lowest for those not completing their program of study).

Table III.21 -- Interviewing Rates by Type of NPSAS:90 Institution

Level and Control		Number Contacted [a]	Percent Interviewed [b,c]
All Levels	Total	9,443	95.4
	Public	3,966	96.1
	Independent	3,615	95.3
	Proprietary	1,862	94.1
Less Than 2 Year	Total	1,605	93.6
	Public	298	94.3
	Independent	111	88.3
	Proprietary	1,196	93.9
2- to 3-Year	Total	2,390	95.3
	Public	1,264	95.7
	Independent	460	95.4
	Proprietary [d]	666	94.4
4+ Year [e]	Total	5,448	96.0
	Public	2,404	96.6
	Independent	3,044	95.6

NOTE: Counts do not include identified "exclusions", but include interviewed and identified non-FTBs.

[a] Contact is defined as speaking with sample member by telephone or reaching a telephone at sample member's residence or place of work.

[b] Includes both full and partial interviews.

[c] Percentage based on applicable contacted sample members for a given row.

[d] Proprietary schools offering more than 3-year programs are also included in this category.

[e] Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included in this category.

c. Overall Response to Main Interview

Since the interviewing rates reported in the previous subsection are conditional on contact, overall response rates (considering both contact and subsequent interviewing) can be obtained as the product of the locating rate and the conditional interviewing rate. *Raw response rate was 88.7 percent* (computed as 100 x .930 x .954); *projected response rate among remaining eligibles was 90.6 percent* (computed as 100 x .944 x .961)[51]. Weighted response rates (i.e., estimation of population coverage) were generally comparable to the unweighted results presented here (see Section V.B).

Because both full and partial interviews were included in the interviewing statistics considered, overall response was also evaluated in terms of completeness of the interview[52]. Partial interviews resulted from sample members breaking off the interview after beginning it. Such break-offs included explicit refusals to continue (in many cases after initial refusals) as well as situations in which a scheduled interview purportedly conflicted with other planned activities and the sample member could not be recontacted prior to the end of data collection (many of these latter cases are suspected to be implicit refusals).

A total of 516 (5.7 percent of total respondents) completed only partial interviews; the distribution of partial interviews by section of "break-off" is shown in Table III.22. The bulk of the break-offs, almost 90 percent, occurred prior to completion of Section B (educational experiences) of the interview. This section of the interview (see Appendix C) requested considerable information about outcomes and experiences in the postsecondary schools attended by sample members and was, by far, the longest section of the interview (taking, on average, over 13 minutes to complete). If Section B was completed, subsequent break-off was quite minimal; no final break-offs occurred in the final two sections of the interview.

Table III.22 -- Distribution of Final Break-Offs (Partial Interviews), by Section

Break-off before Completing Section	Percent
Total	100.
B	89.
C	3.
D	5.
E	--
F	1.
G	2.
H	1.
I	--
J	--

-- Denotes less than .5%.

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51 Equivalently, estimated response rate among applicable sample members can be obtained from the entries in Figures III.1 and III.2 as (9,011)/(9,011 + 363 + 568).

52 Recall that for non-FTBs the interview was completed once ineligibility status was completed.

d. Response to Reliability Reinterview

Random selection for reliability reinterview was accomplished on-line, at the completion of the main interview (i.e., only confirmed FTBs who completed all sections were eligible). To achieve a targeted 200 cases for reliability reinterviewing, 229 cases were selected (29 cases -- about 13 percent of the selected group -- refused any additional interviewing when notified of selection). The reinterview itself (copy provided in Appendix C) was a brief subset of the main interview and was administered three to four weeks following the main interview.

Final status of the reinterview effort is detailed in Table G.26 (see Appendix G). Among the 200 initially agreeing to complete a reliability reinterview, full reinterviews were obtained from 192 (96.0 percent) and a partial reinterview was obtained from one case (0.5 percent). Of the remaining cases: 2 were refusals (even after initially agreeing to participate) and the remaining 5 had moved between initial contact and reinterview contact. Results from the reinterview data are provided subsequently in Section IV.

e. Response Burden and Effort Expended

Prior discussions in this section have detailed outcomes of the BPS:90/92 full-scale data collection; however, the burden placed on respondents and the resources needed to obtain these outcomes are equally important consideration for subsequent implementation of follow-up surveys of this cohort. In considering such statistics in this subsection, discussion and results are typically restricted to eligible sample members, since ineligibles will not be contacted in the future.

Respondent Burden. To reduce burden on respondents (and to increase participation by having a shorter instrument), it was important to reduce the field-test interview (which had required, on average, about an hour for administration) to about 40 minutes for eligible sample members. Estimated (from field test timing results as modified to reflect instrument revisions) and actual administration time, overall and by section, are shown in Table III.23[53]. Section timings are based on those who completed that section in one interview session.

Generally, actual administration time (in total and by section) closely approximated time estimated from field test results. The major exception, which alone accounts for almost all of the total difference, involved the locator section (Section J). As indicated earlier, the format of NPSAS:90 full-scale study information on Mother and Father address and phone number differed considerably from that of the field test. This difference (unknown at the time of estimation) required overlaying additional questions to collect required tracing source information in Section J, leading to the unanticipated additional length of that section.

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[53] Estimated (from field test results) and actual (from full-scale study results) time for ineligibles was less than three minutes, involving only response to those items in Section A needed to establish ineligibility.

Table III.23 -- Actual and Estimated Time to Administer the BPS:90/92 Interview

Section	Number of Cases [a]	Minutes to Administer [a]	Estimated Minutes [b]
Total [c]	NA	40.77	39.19
A - Introduction and Validation [d]	3,361	3.68	3.54
B - Education Experiences	5,691	13.04	13.88
C - Educational Finance	5,804	3.98	4.07
D - Work Experience	5,625	5.58	5.30
E - Other Education and Training	5,670	0.98	1.03
F - Demographic Information	5,680	1.51	1.33
G - Family Information	5,651	2.54	1.92
H - Goals, Aspirations, Expectations	5,613	3.55	3.53
I - Public Service and Voting Experience	5,620	1.06	1.07
J - Locator Information	5,623	4.85	3.49

[a] Actual section timing could only be computed for respondents who completed the entire section in one session; numbers of cases reflect that portion of total respondents meeting this requirement.

[b] Estimated time was determined from field test timing analyses, adjusted to reflect instrument revisions.

[c] Total actual time for administration was determined as the sum of section administration times; consequently, number of cases is undefined.

[d] A number of initial break-offs occurred in this introductory section, since the section was begun on first contact with the individual (when a scheduled interview time had not been prearranged).

Average overall interview administration time showed some variation as a function of type of NPSAS:90 school. Table III.24 shows both the sum of section timings (identified as "second estimate") but also an estimate of total administration time obtained from those respondents who completed the entire interview in one session. It can be seen that only about 45 percent of the 6,009 full interviews from eligible sample members were completed in only one interviewing session; the remainder required *at least* two sessions. While not shown in the table, minimum and maximum of the total first estimate administration time were, respectively, 15 minutes and two hours and 5 minutes.

The total first estimate of interview timing is about 1.5 minutes greater (significantly given the number of cases involved) than the second estimate, reflecting a potential bias (or basic population difference) in one of the two estimates. The directionality and approximate magnitude of this difference is reflected in estimates within each of the specific school types considered. The first estimate is considered a more accurate measure (even though it is based on fewer cases), since there is a potential downward bias in the second estimate.

Table III.24 -- Average Elapsed Minutes to Complete Overall Full-Scale Interview by Level and Control

Level	Control	First Estimate [a]			Second Estimate [b]
		Number	Average	Standard Deviation	
All Levels	Total	2,791	42.20	12.32	40.77
	Public	1,162	42.03	11.93	40.37
	Independent	1,124	42.65	12.18	41.43
	Proprietary	505	41.62	13.42	40.17
Less Than 2 Year	Total	404	41.09	13.06	39.53
	Public	81	41.33	11.81	39.16
	Independent	19	40.51	13.45	39.93
	Proprietary	304	41.06	13.39	39.60
2-3 Year	Total	700	42.51	12.69	41.14
	Public	349	42.35	12.29	40.63
	Independent	150	42.96	12.64	42.31
	Proprietary [c]	201	42.46	13.44	41.15
4 + Year [d]	Total	1,687	42.35	11.96	40.91
	Public	732	41.96	11.78	40.36
	Independent	955	42.64	12.09	41.34

[a] These estimates are based exclusively on those who completed the interview in one session.

[b] These estimates are the sums of the means of section completion times (which were based on those completing a given section in one session).

[c] Proprietary schools offering more than 3 year programs are also included in this category.

[d] Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not, proprietary schools are not included at this level of offering.

Specifically, those who break-off within a particular section do not contribute to that section average (a component of the second estimate) *and* break-offs (with or without subsequent continuation) tend to occur in sections that are longest for the individual (e.g., Section B). This suggests that the components of the second estimate are artificially lowered by exclusions of a number of those individuals for whom certain sections were longest. A potential downward bias also exists in the first estimate. If propensity to complete the interview in more than one session is positively related to interview administration time, then those completing the interview in only one session will contain fewer of the cases with longer interviews and, thus, lead to an underestimate of the administration time.

Regardless of the estimate considered, however, differences among the several types of schools, as shown in Table III.24, are relatively small; further, within the first estimate values (which are considered most accurate), no consistent trends are evident. The suggestion of minimal difference, over school type, of overall instrument administration time masks minor

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differences that were observed in the individual sections. Details of timing for each section, by level and control of NPSAS:90 school are provided in Appendix G (Tables G.14 through G.23). These results generally indicate timing differences for students sampled from public and independent schools as a function of level of offering (but not for those sampled from proprietary schools), with no notable timing differences over sector type within a level of offering category.

The observed section timing differences tend to counteract one another, however, when aggregated. Time to complete sections about educational experiences, financing, and expectations (including questions about graduate school) tend to increase with increasing level of offering (probably due to more schooling and school finance to report at base year schools with higher levels of offering). On the other hand, time to complete sections involving family and household matters (Sections F and G) show a decrease with increased level of offering (probably due to decreasing proportions who are independent, are married, or have children).

Resource Utilization. Resources expended to obtain interviews represent a major consideration for planning and executing subsequent sutdies; such expenditures encompass a number of cost elements and areas. For purposes of this presentation, features of the marginal resource expenditures are considered most relevant[54]. Among variable costs, the greatest budgetary impacts arise from interviewer time and telephone toll charges. These are the elements considered here.

A total of 20,818.8 telephone interviewer hours (exclusive of supervision, monitoring, administration, and quality circle meetings) were required for locating and interviewing in the BPS:90/92 full-scale study. Using this as a base, all interviews (full and partial, eligible and ineligible) this represents: 2.31 hours per obtained interview; using more restrictive bases, and the same total hours yields: (1) 3.19 hours per full or partial eligible interview obtained; and (2) 3.46 hours per full eligible interview. Note that increases in the latter two estimates (those restricted to eligibles) reflect a reduced number of base interviews, while maintaining in total time, the interviewing and locating time for the large number of identified ineligibles (over one fourth of the yield). Had ineligibles not been included in the sample, estimates per eligible interview would have been closer to the first estimate given.

Maximum time of actual interviewing can be estimated using upper bound estimates[55] of: 44.5 minutes (.742 hours) per complete interviews with eligibles; 5.2 minutes (.087 hours) per completed interview with ineligibles; and 19.8 minutes (.330 hours) for partial interviews. Applying these estimates to the counts given previously, maximum interviewing time is about 4,845.3 hours. From this computation, well over three-fourths of the interviewer time was

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[54] Fixed cost resource expenditures are recognized as real; however, they are required regardless of scale or outcome of a data collection effort. Consequently, a scale independent measure of resource expenditure (i.e., variable cost factors) is considered more appropriate.

[55] Upper bound estimates include corrections for suspected downward bias in reported administration time as well as a average of 1.5 minutes to bring up and review a case over all sessions when interviews were conducted; estimates for interviews with ineligibles was based on Section A timing, and estimates for partial interviews was based on Section A and B timing (see Tables G.14 and G.15).

spent in trying to reach sample members by phone (including reviews of records of calls and prior comments) both before and after (if applicable) contact and in identifying exclusions (for whom no interview data were collected).

Using these estimates, it is also possible to project more accurate times for obtaining interviews from eligibles, had there been no ineligibles in the sample (which will more and more approximate reality in subsequent follow-up surveys of this cohort). Reducing the residual locating time by a factor of 27.6 percent (which assumes locating time and study eligibility are independent) and adding computed interview time only for eligibles, yields a projected 2.48 hours per eligible interview (full or partial) and 2.69 hours per full eligible interview.

Additional insight into the amount of calling needed to reach sample members is shown in Table III.25, which presents statistics (in total and by type of NPSAS:90 institution) on number of telephone calls made. (Supplemental tables, similar in form, are provided in Appendix G -- Tables G.27 and G.28 -- for the subset of cases who were located and for the subset of eligible sample members[56] from whom full interviews were obtained.) Statistics are provided for: (1) locating calls (including the call on which contact was made); (2) interview calls (made after initial contact, but including the call on which contact was made); and (3) total calls (correcting for the double count of the call on which contact was made).

From information provided, the total number of calls can be computed as 148,987; from this number, the average call (including those in which entire interviews were accomplished as well as those which resulted in a "ring, no answer") can be computed as lasting about 8.4 minutes. Maximum number of locating calls to a single sample member was 139; maximum number of calls to a sample member in an attempt to interview him/her was 184; and the total call maximum was 189[57]. Minimum calls made was consistently 1, in all categories and over all types of schools.

Examination of average *total* calls reveals differential effort required for students sampled from different types of schools. Average total calls were greater for students sampled from independent schools than those sampled from public schools, and average call differences between students in these two types of schools were generally greater within schools with less than 4-year programs. Within applicable level-of-offering categories, average calls to students sampled from proprietary schools were intermediate between the public and independent students.

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[56] Interview calls were considered more representative when only eligible sample members are considered, since the interview with ineligibles was quite short and could be easily accomplished in one session.

[57] Maxima represent unusual situations involving both broken appointments and numerous calls resulting in no contact between broken appointments; cut-off limits were established for each of these situations individually, but not jointly.

Table III.25 -- Numbers of Calls Made to All BPS:90/92 Sample Members by Level and Control of NPSAS:90 School

Level	Control	Locating Calls [a]				Interview Calls [b]				Total Calls [c]			
		N	MAX	AVG	SD	N	MAX	AVG	SD	N	MAX	AVG	SD
Total	Total	10,554	139	7.90	8.67	9,528	184	7.89	13.06	10,554	189	14.13	16.54
	Public	4,355	118	7.54	8.36	4,000	132	7.57	12.23	4,355	150	13.57	15.80
	Independent	3,951	84	8.19	8.78	3,656	184	8.05	13.53	3,951	189	14.70	17.34
	Proprietary	2,248	139	8.07	9.03	1,958	163	8.29	13.80	2,248	163	14.14	16.50
Less Than 2 Year	Total	1,936	139	7.85	8.90	1,616	163	8.51	14.43	1,936	163	14.13	17.17
	Public	345	68	7.04	8.27	300	86	7.39	12.88	345	124	12.60	16.92
	Independent	126	58	7.39	9.14	113	75	9.12	13.71	126	92	14.67	18.49
	Proprietary	1,465	139	8.08	9.01	1,203	163	8.74	14.86	1,465	163	14.44	17.11
2-3 Year	Total	2,689	86	7.36	8.12	2,398	184	7.21	12.01	2,689	189	12.90	15.14
	Public	1,406	86	6.98	7.97	1,266	129	7.04	10.99	1,406	150	12.42	14.36
	Independent	500	45	7.33	6.82	463	184	7.27	14.96	500	189	13.14	16.92
	Proprietary [d]	783	76	8.06	9.06	669	108	7.48	11.61	783	146	13.60	15.28
4 + Year [e]	Total	5,929	118	8.16	8.82	5,514	160	8.01	13.05	5,929	182	14.68	16.92
	Public	2,604	118	7.92	8.56	2,434	132	7.87	12.74	2,604	150	14.34	16.34
	Independent	3,325	84	8.35	9.01	3,080	160	8.12	13.29	3,325	182	14.95	17.35

Note: Results are computed for all cases in the CATI sample to whom calls were made, including those excluded after calling was initiated. Minimum number of calls were consistently 1 for all types of calls and NPSAS:90 institutions; consequently this statistic is not included in the table. Abbreviations used in column headings are: N=number of cases; MAX=maximum; AVG=mean; SD=standard deviation.

[a] Locating calls include all calls made to try to establish contact with the sample member including the call on which first contact was made (if applicable).

[b] Interview calls include all calls made to try to interview the sample member (once located), including the call on which first contact was made.

[c] Total calls exclude the double count of the call on which first contact was made.

[d] Proprietary schools offering more than 3-year programs are also included in this category.

[e] Includes 4 year schools with graduate-level offerings and those without; proprietary schools are not included at this level.

Considering only calls to those who were located (Table G.27), average locating calls (7.71) were slightly lower within every school type (reflecting exclusion of cases with only unsuccessful locating calls), but total calls increased slightly (14.61) -- to be expected when excluding those never located, who contribute no interview calls). Public-independent differences maintained directionality but were slightly larger.

Considering calls made to *eligible* full and partial respondents, total call averages (13.47 in aggregate) were smaller within every school type, as were both locating and interview calls. Reductions were most dramatic for interview calls (by excluding cases to whom numerous attempts at interview proved fruitless). Within every offering level, total call reduction averages were greatest for those sampled from independent schools (reduction size increasing with decreasing level of offering). Such differences, with change in base group considered, reflect to a large extent the response rates and non-FTB rates considered previously; results also reflect the fact that more calls, on average, were made to located nonrespondents than to respondents. Examining average locating calls and average interview calls (and their difference) in Table III.25 reveals absolute (and relative) differences between the levels of effort needed to locate students and to interview them, once located. On average, the same number of calls were made for locating as for interviewing; however, averages and differences between locating and interviewing differ by type of institution. Compared to students from the public sector, those from the independent sector required more effort both to contact and to interview (for every offering level, but most pronounced within the less than 2-year schools). Those from less than 2-year schools required fewer calls for locating than interviewing, regardless of sector considered (but most pronounced for those from independent schools). Those from 2-3 year schools required fewer calls per case than locating for those sampled from proprietary schools; differences were negligible within public or independent schools.

5. On-line Coding Operations

Computer-based, on-line code assignment to literal responses was accomplished by interviewers in three substantive areas: IPEDS number identification; field of study, and industry/occupation. Automatic coding technology was combined with computer-assisted coding in these operations; computer-Assisted coding lists presented to interviewers are provided in Appendix H. Each coding operation was subjected to quality control (QC) review and revision (if necessary) procedure performed by expert coders. This review/revision was accomplished sequentially on a weekly basis. Expert coders provided general notes weekly to interviewers specifying particular problem areas and suggestions for improving coding quality. Also, for all coding operations, interviewer-specific information on coding discrepancies (including correct coding of miscoded items) were provided to interviewers in weekly listings.

IPEDS Coding. Respondent-identified "new" post-secondary institutions determined during the interview were coded by a computer-assisted coding system, first used (and tested) in the BPS:90/92 field test.[58] The system incorporated a lookup table, or coding dictionary, of

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[58] Previously identified schools were coded prior to CATI; codes and related institutional information for these schools were preloaded into the CATI data file.

institutions searched by school name within respondent-identified city and state. The dictionary was constructed from the 90-91 and 89-90 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics (IC) files[59]. Dictionary entries included school name, IPEDS code, city, state, level of offering (e.g., 4+ year college or university), institutional control (e.g., public) and annual tuition information[60]. An example display of a city/state listing is provided in Table H.5 (Appendix H). Alternatively, the school could be marked as uncodable and earmarked for post-interview assignment by the expert coding staff. A random sample of 20 percent of the interviewer-coded schools was also selected for QC review/revision.

A summary of results of the IPEDS coding for both undergraduate and graduate school (if applicable) is provided in Table III.26. The table provides numbers and percents of cases that were coded and not-coded and interviewer coding error rates for the total operation and for each of six time periods (of approximately 4 weeks each). The table shows both errors of commission (incorrect coding) and of omission (failure to code a codable school), as well as an overall coding error rate (a weighted average of the two). Rates of "uncodable" as well as the various error rates are quite stable over time, given the numbers of cases considered.

The uncodable rate of 18.3 percent included a number of legitimately uncodable situations (U.S. schools which were not listed in the IPEDS file and schools in foreign countries) in addition to those subsequently assigned by the expert coders (almost 70 percent of the uncoded schools). It should be pointed out that the rate for errors of omission (and consequently, the overall error rate) is somewhat misleading, since the post hoc *expert* coding staff utilized a number of resources to facilitate their efforts, including IPEDS directories, maps, and consultations with NCES. Common reasons for not assigning a school code on-line were: wrong city and incomplete or variant school name provided by the respondent (or entered by the interviewer).

The 4.8 percent commission error rate for the QC sample of interviewer coded schools resulted from number of contributing factors, principally: (a) choosing the wrong school from the lookup table, when the appropriate school could be found on the list; and (b) selecting an inappropriate school rather than making it "uncodable" when the appropriate school could not be found on the list for that city/state. This rate is quite comparable to the coding error rate determined for the field test, even though the percent uncoded was reduced to about half that attained in that earlier operation.

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[59] Files for both years were used to accommodate schools changing name, location and/or type. IPEDS 90/91 data were used for schools listed with the same name in both files. For schools with different names or addresses, both entries were used; other cross-listings were made for schools identified in the field test as being listed for different post offices.

[60] These items were read into the CATI data file and used later in the interview to provide "fills" or "prompts" for certain questions and to determine appropriate branching.

Table III.26 -- Results of On-Line IPEDS Coding by Time Period

	Time Period						
	TOTAL	2/16-3/16	3/17-4/13	4/14-5/11	5/12-6/15	6/16-7/13	7/14-8/10
Total to be Coded	2,234	630	673	426	259	149	97
Total Assigned Code[a]	1,826 (81.7%)	502 (79.7%)	571 (84.8%)	348 (81.7%)	212 (81.9%)	116 (77.9%)	77 (79.4%)
QC Sample Size	355	95	116	65	35	31	13
Coding Errors	17	4	6	3	3	0	1
Coding Error Rate[b]	4.8%	4.2%	5.2%	4.6%	8.6%	0.0%	7.7%
Total Assigned "Uncodable"[c]	408 (18.3%)	128 (20.3%)	102 (15.2%)	78 (18.3%)	47 (18.1%)	33 (22.1%)	20 (20.6%)
Subsequently Coded	277	96	74	47	27	19	14
Uncode Error Rate[d]	67.9%	75.0%	72.5%	60.3%	57.4%	57.6%	70.0%
Overall Error Rate[e]	16.3%	18.6%	15.4%	14.8%	17.4%	12.8%	20.5%

NOTE: Statistics are based on the 2,234 instances (in some cases multiple instances per respondent) for which coding was attempted. Schools identified by respondent during NPSAS:90 were assigned appropriate codes prior to the interviews; thus many interviews required no coding of "new" schools.

a Excluding "uncodable" code, percentages, given in parentheses are based on total to be coded.

b Error rates based on QC sample size.

c Percentages given in parentheses, are based on total to be coded.

d Error rate based on total uncoded.

e Weighted combination of two error rates; e.g., 16.3% = (.817)4.8% + (.183)67.9%.

The error rates presented here represent discrepancies in the actual on-line coding process; they *do not* reflect errors in the data files, since all discrepancies (omission and commission) found in the QC process were corrected on the data files. Also, schools not found in IPEDS or through other NCES efforts (including foreign institutions) were given unique six digit identifiers to distinguish them (these consisted of Federal Interagency Committee on Education (FICE) codes, if present, arbitrary six digit codes). Actual error rate of assigned institutional codes in the data file is estimated at less than 3 percent.[61] Use of a similar coding approach on subsequent BPS follow-ups is certainly strongly recommended by these results.

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61 Obtained by applying the coding error rate of 4.8 percent to the coded cases not selected for QC.

Field of Study Coding. Field of study coding was accomplished by combining automatic coding and computer assisted coding (see Tables H.1 and H.2 for codes). The software for automatic coding was the RTI autocoder system, used to build and expand the coding dictionary as well as to perform on-line automatic coding. Field of study codes consisted of 80 two-digit values (created by collapsing the 1985 Classification of Instructional Programs (CIP) six-digit taxonomy). Electronic versions of the 1985 CIP taxonomy and the 1990/1985 CIP crosswalk were used (with modifications where appropriate) to initialize the dictionaries. Definitions of synonym words and words to ignore were incorporated into the autocoder software.

To further enhance the dictionary, all fields of study from the BPS:90/92 field test that could not be autocoded, were subsequently coded by an expert (in consultation with the NCES), and appropriate input texts were added to the dictionary. When full-scale operations began, the coding dictionary consisted of 1,699 unique text phrases with their associated codes, 1,087 synonym word pairs (e.g., admin and administration and variant spellings had the same synonym word), and five ignore words. While the synonym list and ignore list were static throughout operations, the coding dictionary grew over time.

Respondent-provided literal specification of major field of study was entered as a text string. (Interviewers were given special instructions to clarify vague responses, ask for specificity where appropriate, and distinguish interdisciplinary majors from double majors.) This text field was passed to the autocoder for assignment of a code, after standardizing the input text phase.[62] If the autocoder assigned a specific code, the interview proceeded with no interviewer coding necessary.[63] Otherwise, the interviewer was given a second chance to modify the input text, if appropriate. If the second attempt failed or was not attempted, the interviewer was presented with a list of majors with which to work with respondent in selecting the appropriate code (separate lists were presented for vocational and academic curricula, depending on previously identified program type -- see Tables H.1 and H.2).

All phrases coded on-line by interviewers and a 10 percent sample of those autocoded were reviewed by the expert coding staff. In addition to revising codes, if needed, the expert coders (in consultation with NCES) determined which text phrases to add to the dictionary. The goal was to maximize autocoder hit rate, thereby reducing potential for interviewer error. In all, 704 new phrases were added to the dictionary over the course of operations.

Table III.27 shows results for the field of study coding. The nature of this table is similar to that for the previous table; however, the autocoding operation is also reflected. Of note is the fact that almost 87 percent of the phrases were coded automatically, and that the autocode rate improved from 80.7 percent to over 90 percent over the course of data

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62 Standardization consisted of word sorting, duplicate word and letter elimination, trivial word elimination and synonym word replacement.

63 There were also some input text phrases lacking specificity for which a two-phase operation occurred. The autocoder assigned a general code, and the interviewer was prompted with more specific choices in that discipline for respondent clarification. Text phrases in this category included education; engineering; foreign languages; and social sciences.

Table III.27 -- Results of On-Line Field of Study Coding by Time Period

	Time Period						
	TOTAL	2/16-3/16	3/17-4/13	4/14-5/11	5/12-6/15	6/16-7/13	7/14-8/10
Total to be Coded	11,305	3,337	3,538	2,064	1,307	661	398
Total Autocoded[a]	9,829 (86.9%)	2,814 (84.3%)	3,094 (87.5%)	1,803 (87.4%)	1,167 (89.3%)	593 (89.7%)	358 (89.9%)
Autocode QC Sample Size	982	281	314	189	111	53	34
Autocode Errors	0	0	0	0	0	0	0
Autocode Error Rate[b]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Assigned Code[c]	1,231 (10.9%)	415 (12.4%)	378 (10.7%)	227 (11.0%)	119 (9.1%)	61 (9.2%)	31 (7.8%)
Coding Errors	752	271	212	142	79	31	17
Coding Error Rate[d]	61.1%	65.3%	56.1%	62.6%	66.4%	50.8%	54.8%
Total Assigned "Uncodable"[a]	245 (2.2%)	108 (3.2%)	66 (1.9%)	34 (1.6%)	21 (1.6%)	7 (1.1%)	9 (2.3%)
Subsequently Coded	182	67	52	30	17	7	9
Uncode Error Rate[e]	74.3%	62.0%	78.8%	88.2%	81.0%	100.0%	100.0%
Overall Error Rate[f]	8.3%	10.1%	7.5%	8.3%	7.3%	5.7%	6.5%

NOTE: Statistics are based on the 11,305 instances (frequently multiple instances per respondent) for which coding was attempted. For respondents having no school terms since February 1990 *and* not planning additional education, no field of study coding was required.

a Percentages, given in parentheses, are based on total to be coded.

b Error rates based on QC sample size.

c Excluding "uncodable" code; percentages, given in parentheses, are based on total to be coded.

d Error rates based on total assigned code.

e Error rates based on total uncoded.

f Weighted combination of three error rates; e.g., 8.3% = (.869)0% + (.109)10.9% + (.022)74.3%.

collection (as would be expected with an expanding coding dictionary). Also, the 10 percent QC review of autocoded cases yielded no discrepancies in autocode assignment. Thus, even though the conditional interviewer computer-assisted coding rates (both commission and omission) were quite high, the overall error rate for the operation was only 8.3 percent.

A number of factors contributed to the poor performance in interviewer manual coding. A big factor was that since the autocoder did such a large percentage of the phrases, text phrases requiring manual coding were either newly- and/or rarely-occurring, misspecified, or vague. Interviewers experienced greatest difficulty in a few specific areas: entry of degree

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worked toward rather than majors; vague, inappropriate, abbreviated or incomplete text (e.g., science, or eng); and the distinction between interdisciplinary and double majors.

Again, coding and uncode error rates are inflated, since the *post hoc* expert coding staff was not under the pressure of minimizing burden with an active respondent on-line. All error rates, as before, reflect error in the on-line operation and *not* error in the data file. Since *all* interviewer codings and uncoded values were reviewed and revised by expert coders, where needed. The resultant data files contain minimal error. The considerable success of the autocoding (particularly in light of the high interviewer coding error rates) argue strongly for use of a comparable procedure in subsequent BPS follow-ups.

Industry/Occupation Coding. Industry/occupation coding, like field of study coding, consisted of on-line automatic coding as well as computer-assisted interviewer coding. Automatic coding was achieved by modifying (to code interactively during the interview) the Automated Industry and Occupation Coding System (AIOCS) developed by the Statistical Research Division of the U.S. Bureau of the Census. AIOCS was used in Section D of the instrument where full Census Bureau information on industry/occupation was obtained for respondent's primary job in each of two years.[64] Occupation coding was also accomplished for spouse's job (Section G) and for occupation respondent expected to hold in five years (Section H). In these later applications, full information for AIOCS was not available, and it was not used. For cases in which AIOCS was not used or failed to assign a standard industry or occupation code, the interviewer selected an appropriate code from a list displayed on the screen (see Tables H.3 and H.4 for coding screens). All text phrases which were coded by the interviewer (or deemed uncodable) were subsequently reviewed and revised, where needed, by expert coding staff.

Table III.28 and III.D.29 show the results of the industry and occupation coding, respectively, that involved AIOCS (i.e., as used in Section D). AIOCS was successful in autocoding about half of the responses (slightly more for occupation than for industry), with an assumed 0 percent error rate.[65] Interviewer coding error rate for both industry and occupation was quite high (about 40 percent--but somewhat lower for industry; uncode error rate approached 100 percent for both codings. More importantly, despite weekly feedback (general and interviewer-specific) from the expert coding staff, including suggestions for improving performance, no improvement in performance over time was observed.

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[64] Although standard SIC/SOC codes were provided by the AIOCS, these were mapped onto a smaller set of codes used by NCES.

[65] The Census Bureau software used was assumed to be the best available for this purpose.

Table III.28 -- Results of On-Line Industry Coding in Section D, by Time Period

	Time Period						
	TOTAL	2/16-3/16	3/17-4/13	4/14-5/11	5/12-6/15	6/16-7/13	7/14-8/10
Total to be Coded	3,971	1,197	1,155	733	498	261	127
Total Autocoded[a]	47.5%	48.3%	49.3%	46.1%	43.4%	46.4%	51.2%
Assumed Error Rate[b]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Assigned Code[c]	45.4%	48.3%	42.3%	47.1%	48.4%	45.6%	47.2%
Coding Error Rate[d]	25.2%	23.3%	24.8%	22.6%	29.1%	36.1%	23.3%
Total Assigned "Uncodable"[a]	7.1%	5.9%	8.5%	6.8%	8.2%	8.1%	1.6%
Uncode Error Rate[d]	97.5%	98.6%	96.9%	96.0%	100.0%	95.2%	100.0%
Overall Error Rate[f]	18.4%	16.5%	18.7%	17.2%	22.3%	24.1%	12.6%

NOTE: Statistics are based on the 3,971 instances (from 0 to 2 per respondent) for which coding was attempted.

[a] Percentages are based on total to be coded.

[b] Error rate of CENSUS software was assumed nil.

[c] Excluding "uncodable" code; percentages, given in parentheses, are based on total to be coded.

[d] Error rates based on total assigned code.

[e] Error rates based on total uncoded.

[f] Weighted average of three error rates; e.g., 18.4% = (.475)0% + (.454)25.2% + (.071)97.5%.

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Table III.29 -- Results of On-Line Occupational Coding in Section D, by Time Period

	Time Period						
	TOTAL	2/16-3/16	3/17-4/13	4/14-5/11	5/12-6/15	6/16-7/13	7/14-8/10
Total to be Coded	3,971	1,197	1,155	733	498	261	127
Total Autocoded[a]	55.6%	55.1%	56.7%	56.2%	50.8%	56.7%	63.0%
Assumed Error Rate[b]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Assigned Code[c]	38.6%	39.4%	38.0%	37.4%	42.4%	35.6%	35.4%
Coding Error Rate[d]	49.5%	50.3%	54.7%	39.4%	51.2%	47.3%	48.9%
Total Assigned "Uncodable"[a]	5.8%	5.6%	5.3%	6.4%	6.8%	7.7%	1.6%
Uncode Error Rate[e]	97.8%	97.0%	95.1%	100.0%	100.0%	100.0%	100.0%
Overall Error Rate[f]	24.8%	25.2%	25.8%	21.2%	28.5%	24.5%	18.9%

NOTE: Statistics are based on the 3,971 instances (from 0 to 2 per respondent) for which coding was attempted.

[a] Percentages are based on total to be coded.

[b] Error rate of CENSUS software was assumed nil.

[c] Excluding "uncodable" code; percentages, given in parentheses, are based on total to be coded.

[d] Error rates based on total assigned code.

[e] Error rates based on total uncoded.

[f] Weighted average of three error rates; e.g., 24.8% = (.556)0% + (.386)49.5% + (.058)97.8%.

Indications of the reasons for difficulty in industry/occupation coding were revealed in both interviewer debriefing and in observations of the actual discrepancies. Specifically, interviewers saw the operation as very time consuming, and they were concerned about "loosing' the respondent by taking too much time with the coding procedure. Discrepant results showed that in industry coding, interviewers often selected a code based on the occupation rather than the industry and that the distinction between durable versus non-durable goods was often not made correctly. Occupation coding difficulties covered a somewhat broader spectrum. Many correct assignments were counterintuitive to interviewers, such as accountants as "management, other" and airline pilots as "technical, not-computer related." Lack of respondent specificity (and interviewer failure to prompt further) also was an obstacle (e.g., teachers, teacher's aides, and college teachers all have different codes, so "teaching" is too vague). It was extremely difficult for the interviewers to remember all of the rules for appropriately selecting an occupation code, even though the coding screens included example occupations often encountered with given codes.

High interviewer coding error rates are also reflected in the strictly computer-assisted coding results (applicable to occupational coding only) in interview Sections G and H), as shown in Table III.30. While interviewer coding and uncode error rates for these applications were both less than that obtained when used in conjunction with AIOCS, the overall error rate is higher, when compared to Table III.29. A higher overall rate is to be expected, however, without benefit of the effectively error-free autocoding of over half the responses. Lower interviewer coding and uncode error rates are also attributable to the lack of autocoding, since "easy" codings (coded by AIOCS) could have been easily coded by interviewers. Improvement over time is also suggested in the results shown in Table III.D.5.5. While this may reflect learning, it may also reflect nothing more than attrition (planned and unplanned) among interviewers--with the most effective interviewer/coders remaining.

Again, the results presented here reflect only errors in the on-line coding operation. Because *all* non-autocoding operations were reviewed by expert coders, error rate in the data file should be minimal.

In general, the on-line industry and occupational coding was not considered particularly effective. The AIOCS autocoder does not provide for dictionary update over time (as reflected in the relatively stable autocoding rate), and can be projected to resolve only about half of the responses. This autocode system also requires collection of much more data than is needed for most purposes. The task of on-line coding of industry and occupation is clearly a difficult one for interviewers and it tends to remain difficult and error-prone despite efforts to provide feedback on common and specific errors. In subsequent follow-ups of this, and later, BPS cohorts, the approach should be further refined. One option would be to build a coding dictionary from BPS:90/92 results for use with the RTI autocoder.

Table III.30 -- Results of On-Line Occupational Coding in Section G and H, by Time Period

	Time Period						
	TOTAL	2/16-3/16	3/17-4/13	4/14-5/11	5/12-6/15	6/16-7/13	7/14-8/10
Total to be Coded	6,666	2,010	2,109	1,190	787	390	180
Total Assigned Code [a]	86.2%	84.4%	86.6%	88.3%	87.9%	85.1%	82.8%
Coding Error Rate [b]	33.6%	35.0%	32.8%	35.4%	31.8%	31.3%	30.2%
Total Assigned "Uncoded" [c]	13.8%	15.6%	13.4%	11.7%	12.1%	14.9%	17.2%
Uncode Error Rate [d]	69.1%	79.9%	69.5%	59.0%	64.2%	53.5%	45.2%
Overall Error Rate [e]	38.5%	42.0%	37.7%	38.2%	35.7%	34.6%	32.8%

NOTE: Statistics are based on the 7,410 instances in which coding was attempted for spouse/partner's occupation or respondents expected occupation in five years (0 to 2 instances per respondent).

a Excluding "uncodable" cases; percentages, given in parentheses, are based on total to be coded.

b Error rates based on total assigned codes.

c Percentages, given in parentheses, are based on total to be coded.

d Error rates based on total assigned uncodable.

e Weighted combination of two error rates; e.g., 38.5% = (.862)33.6% + (.138)69.1%.

D. Suggestions for Subsequent Surveys

BPS:90/92 operations revealed a number of areas for improvements to subsequent surveys of this cohort and of future BPS cohorts. Recommendations for NPSAS:96, which will spawn the next BPS cohort are also evident, particularly in view of the large non-FTB rate experienced in this study. It is fully recognized that selection of the BPS subsample of NPSAS must rely on institutional records; however, oversampling to accommodate about a 25 percent misclassification rate should be easily implemented. Additionally all students should be screened in the NPSAS student interview, using FTB identifier questions similar to the ones developed in BPS:90/92. This is easily implemented in a CATI environment, and identified non-FTBs, while not contributing to the next BPS cohort, will still be eligible NPSAS sample members.

Although overall response rates are generally acceptable, greater success in both locating and interviewing are certainly desirable in subsequent follow-ups, since nonresponse in longitudinal studies tends to be cumulative. For respondents who provided full updated tracing information, locating in future studies should be considerably facilitated; however, for those who did not, locating is expected to become more difficult. Reduction of levels of effort per case is also a major target for improvement, to yield more cost effective (and less redundant) operations.

Towards a reduction in the cumulative nonresponse effect, it is recommended that the second follow-up attempt to obtain retrospective information on critical data elements (e.g., education and work history) for those who failed to respond to the current follow-up. This will certainly introduce a longer interview for nonrespondents to the current survey, and for that reason, retrospective information from more than one prior follow-up would not be recommended. Consequently, cohort members who fail to respond to either the first or second follow-up should be seriously considered for exclusion from further consideration.

Locating represents an area in which several improvements are available. Minor improvement in locating success is expected as a result of improvements in systems (particularly those involved in moving cases from CATI to intensive trace and back) and in operational modifications (stochastic identification of potential problem cases and early concentration on such cases); however, net gain here is expected to be minimal. Two specific recommendations for more substantive gains are: (1) conducting intensive tracing, which has proved to be effective and relatively non-redundant, *prior to CATI operations*, and (2) implementing *field tracing* for those who can not be traced through a central telephone operation.

One of the previously identified challenges of the intensive tracing operation was the time required to identify cases needing such tracing and the additional time needed to trace them and return them to CATI. Individuals who were not located in the first follow-up represent an immediate pool for additional intensive tracing, and this can be accomplished prior to initiating of interviewing, thus considerably reducing timing conflicts. While unit costs will be greater for those in this category who could be readily located in CATI, costs should decrease for those who would require trace subsequent to an initial CATI attempt (and most of those not located represent this latter category, by definition).

Field trace represents a proven (but expensive) method of further increasing contact rate. A total of 443 cases was not located in the intensive trace operation; if half of these could have been contacted in CATI, both raw (95.2 percent) and applicable (96.1 percent) locating rates would have been increased by about 2 percentage points over what was actually achieved in BPS:90/92. Marginal costs for this gain are estimated at about $300 to $400 per located case (which would have increased costs by about $90,000 in the current study. One potential drawback to field tracing is the geographic spread of cases to be located, and the associated increased costs usually associated with increasing dispersion. Increased costs for dispersed sample members could be offset somewhat by attempting this only with cases that can be clustered within defined geographic areas or by subcontracting to credit bureaus with existing dispersed field offices[66]. An examination of the costs and effectiveness of field tracing is recommended for the second follow-up field test, since such an addition is still consistent with the overall project approach of using more expensive tracing operations only when the less expensive ones are unproductive.

As a potential savings to offset field tracing, the parent/other mailing could be restricted to those sample members who did not provide tracing information in Section J of the interview (or eliminated completely). It is certainly not unreasonable to assume that parents/others who responded to the mailing would also respond to tracing calls from CATI interviewers. Continuation of the NCOA operation is, however, recommended, principally due to its very low unit cost. Even though such tracing was quite redundant with base-year information, redundancy in subsequent studies should be less (particularly in obtaining phone numbers for parents or other tracing sources that have moved).

Continuation of the mail tracing with sample members should also be maintained. A lead letter to students (reducing the amount of study explanation required of CATI interviewers) is important for a number of reasons. Including the tracing sheet with this mailing has marginal budgetary impact; return postage should also be a minor expense, if response rates are no greater than those realized in BPS:90/92. This mailing should be timed as close to the initiation of CATI as possible, so that the content of the letter will be fresher in the minds of respondents when they are contacted by phone. (Hopefully, such advance notification will rarely act as a signal for the sample members to switch their answering machines on full-time.)

Minor improvements to interviewing rates should also be realized with improvements to systems (allowing more time for data collection), early identification of, and focus on, problem cases, and a recommended extension of the data collection period (in all cases reducing the number of "ran out of time" cases). (Extending the data collection period should also have a small effect on tracing and would certainly facilitate additional tracing time needed if the field trace recommendation is considered.) Major interview rate improvement will only be realized, however, by reducing the number of explicit and implicit refusals

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[66] Even if located, contacting sample members without phones remains problematic. One possibility would be to have field locators personally deliver requests for such individuals to call-in to existing WATS numbers; however, only moderate success, at best, can be projected for such an operation, given results presented here.

(including the use of answering machines and others as gatekeepers). Since implicit refusals also affect locating, refusal reduction should also have a positive effect in that area too.

One possible way to encourage participation is through realistic *reduction in interview administration time*, which can be shared with respondents at the start of the interview as an attempt on the part of the government to reduce burden. A published time of half an hour (or less) should yield noticeable improvement, since 30 minutes seems to be a natural cut-off point for some potential respondents. Reduced interview time should also reduce the number of interviews that have to be conducted over several sessions (reducing the basic inefficiency of that mode of administration). Reduction of the interview administration time, to the extent allowable by data element requirements, is strongly recommended.

Getting sample members to better identify with the study also should increase the participation rate. Methods that have been used relatively successfully in past NCES (and other ED) longitudinal studies include *Study ID Cards* (identifying the sample member as a member "in good standing" of the study) and *Newsletters* (imparting some information about the sample members, the study, NCES, and the contractor firms as well as providing assurances of data protection and motivational information beyond that which can be included in an lead letter). A test of using one or more of these tools in the second follow-up field test is strongly recommended.

The use of *special refusal converters* proved quite successful in BPS:90/92 and should be continued in the second follow-up. Consideration should also be given to assigning cases to this group as soon as any initial refusal is made[67]. One final consideration is the use of a *minimal interview* for hard core refusals. This interview should require less than 5 minutes to administer and should be comprised of no more than 10 brief questions relevant to the most critical data elements needed (e.g., degree attainment, schools attended, and possibly overall dates, receipt of additional aid, current employment, current marital and child status, and volunteer/public service indicator). The minimal questionnaire would be offered only when all other attempts at refusal conversion had failed. A potential problem in using minimal questionnaires is abuse by both interviewers and respondents. If special (proven) refusal converters are used, interviewer abuse should be less likely (particularly if all such individuals are permanent staff members of the contractor organization) and more easily monitored. Respondent abuse (hold-out for minimal questionnaire in all subsequent follow-ups) would probably be unavoidable.

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[67] In the current study, special refusal converters were only activated after the second refusal.

IV. POST-CATI DATA EXAMINATION

In addition to information provided previously regarding data quality (e.g., on-line coding), other aspects of data quality were also reviewed. These examinations are reported in this chapter and include: (1) analyses of missing data patterns and up-coding required for "other specify" items; (2) analyses of reliability of both base-year and first follow-up data; (3) analyses of validity of first follow-up data; and (4) analyses of order effects in certain multiple-response questions.

Examinations of missing data and up-coding were straightforward, involving principally tabulations of the extent of missing data and tabulations/documentation of up-coding performed. These analyses are item-based and were conducted for all individuals reaching the given item in the interview.

Also, the full-scale study was designed to permit two sets of analyses to assess the temporal stability, or reliability, of BPS followup interview responses. One set of analyses was conducted to compare base-year NPSAS:87 responses with first follow-up BPS:90/92 interview responses. A second set of analyses was conducted to compare responses obtained in the BPS:90/92 production interview with a second set of responses obtained three to four weeks later in a reinterview (see Appendix C). The former comparisons assess relatively long-term stability of responses, while the latter assess short term temporal stability. Analyses were restricted to those completing the production interview, who were selected for, and responded to, the reliability interview and who provided determinate data during both interviews for the applicable items.

The study design also allowed validity analyses that compared institutional reports of enrollment status during the fall/winter of the 1991-92 school year (obtained only for sample members who attended a 4-year NPSAS school) with comparable variables constructed from student responses to the interview. Such analyses were conducted only for respondents attending a 4-year base-year school for whom both applicable interview and institution-provided data were determinate.

Order effects were examined for the five sets of items in the interview for which the items were administered in sequence with a random starting point. These analyses investigated the differential item response distributions conditional on the order in which the item was administered within the sequence. Such analyses were restricted to respondents for whom the questions were applicable and who provided determinate responses to all such items within a given set.

A. Indeterminate Response and Up-Coding

1. Indeterminate Responses

Allowances were made in the CATI program to accommodate (both as a fixed response alternative and by special keyed entry) responses of "Don't Know" (DK) and "Refusal" to any question. Such responses represent indeterminacies in the data set and must be resolved by imputation or subsequently dealt with during analyses; consequently, they need

to be reduced where possible. Refusal responses are generally in response to items considered sensitive by the respondent, but DK responses result from a number of potential sources; these include (1) question wording not being understood by the respondent (and lack of explanation by the interviewer), (2) hesitancy on the part of the respondent to provide "best guess" responses (and insufficient prompting from the interviewer), (3) the answer being truly unknown by, or inappropriate for, the respondent, and (4) an implicit refusal to answer the question.

A summary of DK and refusal responses for BPS:90/92, by interview section, is provided in Table IV.1. Statistics are provided for both the number and percentage of items in each section in which any refusal or DK response were given, and for maximum item-level DK and refusal counts and rates for respondents, within each section. Respondent-based rates are based on *only those sample members for whom each item was applicable and asked*; as such, maximum counts and maximum rates do not necessarily apply to the same item[68]. All statistics are based on a maximum of 6,525 full and partial interview respondents (i.e., cases with determinate data on the resulting data files -- see Section V.A). The final section of the interview (Section J) collected only locator information; statistics for this section are not included in Table IV.1.

Refusal responses (from at least one respondent) were given to over 20 percent of the items in the interview. This is, however, somewhat misleading, since the frequency of refusal responses was not great (as shown in the maximum refusal counts) except in Section G, which dealt with personal and family income. Only 46 (about 5 percent) of the 924 potential items evoked 5 or more refusal responses (18 of these items were in Section G). Also a total of about 215 unique respondents accounted for the bulk of the items with less than 5 refusal responses. Also, with the exception of Section A, where the maximum refusal rate resulted from one refusal among 12 sample members for which the question was applicable, it can be seen that refusal rates are generally quite low; less than 1 percent in all but Sections F and G (and the rates in Section F are based on relatively small sample sizes).

Generally, refusals were obtained where they could be expected. The Section F rates greater than 1 percent were associated with dates (date last lived with spouse, for separated individuals, and children's date of birth, for those with children). All questions in Section G regarding amount of 1990 and 1991 income (personal, parent, and household), and whether and how much of it was earned, elicited refusal rates of 2 percent or greater. When accounting for DK responses to these same questions (see below, Table IV.2), which in many instances represented implicit refusals, indeterminacy to income questions approached 50 percent. Refusal rates for all other questions in that section were in all cases less than 1 percent.

DK responses were more pronounced; 35 percent of the possible items resulted in at least one DK response. Again this is somewhat misleading, since only 7 percent of the items

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[68] As an example, if 60 of 3,000 applicable sample members refused to answer one question and 6 of 12 applicable sample members refused to answer another question, the maximum count of refusals would be 60 while the maximum rate would be 50 percent.

Table IV.1.-- Summary of Indeterminate Responses to Questions by Interview Section

Interview Section	Number of Items in Section[a]	Refusal Responses				Don't Know Responses					
		Items with any Refusal Responses		Maximum Per Item Refusals		Items with any Don't Know Response		Items with more Item 19, Don't Know		Maximum Per Item Don't Know	
		Number	Percent[b]	Number	Percent[c]	Number	Percent[b]	Number	Percent[b]	Number	Percent[c]
Total	924	195	21.1	137	8.3	323	35.0	171	7.0	1,465	41.3
A	57	7	12.3	2	8.3	12	21.0	3	5.3	38	8.7
B	402	15	3.7	8	0.1	112	27.9	24	6.0	323	14.3
C	85	50	58.8	12	0.8	60	70.6	13	15.3	255	10.7
D	104	29	27.9	7	0.5	44	42.3	12	11.5	27	2.3
E	30	6	20.0	2	0.0[d]	5	16.2	0	0.0	2	0.8
F	48	37	77.1	12	1.4	33	63.8	5	10.4	18	7.1
G	32	27	89.4	137	3.1	29	90.6	13	40.6	1,465	41.3
H	48	21	43.8	14	0.2	22	45.8	9	18.8	383	14.6
I	18	3	16.7	16	0.3	6	33.3	2	10.5	182	3.0

Note: Statistics are based on a maximum of 6,525 sample members with full or partial interviews or appropriate subsets for whom specific sections/questions were applicable and reached. Section J of the interview, which collected locating information only, is not included.

[a] Including all possible repeats of questions.

[b] Percent is based on number of items.

[c] Percent is based on number of cases for whom question was applicable (i.e., reaching the point in the interview, not legitimately skipped, and not determined "not applicable"). It should be noted that, under this definition, the maximum percentage reported may not correspond to the same question as maximum count reported.

[d] Less than 0.05 percent.

yielded DK responses greater than 1 percent. The bulk of those items and the bulk of the high DK counts and student based DK rates were in Sections B, C, G, H, and I. Student-level DK maximums in the other sections were based on small sample sizes and/or (particularly in section F) corresponded to items with high refusal rates (thus probably representing implicit refusals).

Section B, Education Experiences, was the largest section in the interview, but had a number of complex branching patterns. Consequently, some items were answered by only small subsets of individuals. The maximum DK rate in this section is associated with one such question, and represents one person of six who could not remember the date they subsequently received a license, which they worked toward at the third school attended but did not receive on completion of their last term at that school.

The items that yielded the highest DK counts and rates were the two items involved with student satisfaction with features and services at principal schools (Items B.9.A and B.9.B). For both the NPSAS school and "other" principal school the DK rate was over 2 percent in response to satisfaction with "social life", suggesting a misunderstanding of that option. The highest DK counts and rates, however, were elicited by supplemental questions regarding "availability" of services. These supplemental questions were only asked if the respondent answered that the service to be rated was not used[69]. For all the supplemental "availability" questions, DK rates ranged from 3 to 10 percent, and DK counts ranged up to 323. Rates were highest for the categories of "personal counseling" and "job placement/recruitment services". Since students would not be expected to use services that they did not know were available, it is not unreasonable to attribute true lack of knowledge of the presence of such services to up to 10 percent of the students who did not use them.

Section C, addressing educational financing, elicited maximum DK rates where expected, reflecting to some extent the field test experience. Specifically, maximum DK counts and rates occurred in questions asking for dollar amounts of financial aid received, separately, for Academic Years 90-91 and 91-92 (C.4 and C.5; 8.6 and 10.7 percent, respectively), and in questions about dollar amounts borrowed and still owed and when payback was to (or did) begin (C.10.A, C.10.C, and C.10.D; from 5.3 to 10.1 percent). While some uncertainty about these data may have existed for some respondents, it is expected that some of these responses were implicit refusals. DK rates greater than 1 percent also persisted for the set of questions about dependency status (C.12.B - C.12.D). It is expected that the bulk of these DK responses can be attributed to insufficient prompting/rewording on the part of interviewers.

Very large DK counts and rates were obtained in Section G. Items eliciting the greatest counts and rates were those associated with income (the same items discussed before regarding high refusal counts/rates). Separate and combined refusal and DK rates for these items are shown in Table IV.2. DK rates shown in the table support a hypothesis that some,

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[69] The supplemental questions were added to the instrument on the basis of field test results with these items; specifically, they were added so that a "didn't use" response could be appropriately attributed to non-availability, if applicable.

Table IV.2 -- Combined Refusal and "Don't Know" Statistics for Income Questions

Data Element	Total Rate	Refuse Rate	DK Rate
1991 Gross Personal Income	10.9	2.4	8.5
1991 Gross all Earned?	10.9	2.4	8.5
1991 Earned Personal Income	11.1	2.4	8.7
1990 Gross Personal Income	14.4	2.4	12.0
1990 Gross all Earned?	14.4	2.4	12.0
1990 Earned Personal Income	14.7	2.5	12.2
Parents' Gross 1991 Income [a]	42.0	2.6	39.4
Parents' Gross 1990 Income [a]	43.9	2.6	41.3
1991 Gross Household Income [a]	24.6	2.0	22.6
1990 Gross Household Income [a]	26.6	3.1	23.5

NOTE: All rates based on sample members for whom items were reached and applicable.
[a] For a given year, either Parent Income or Household income was collected, depending on sample member's dependency status during that year.

but not all, of the responses represent implicit refusals. One would expect respondents to be less informed regarding parental and total household income than personal income, and one would expect greater memory problems with more remote years. Both of these situations exist. On the other hand, one would not expect almost 9 percent of the sample members to be uninformed about their personal income the previous year (particularly when the interview was conducted reasonably congruent with the time that Income Tax Forms would have been required). Clearly, additional effort is needed in subsequent BPS follow-up interviews to attempt to reduce the DK rates (particularly regarding parental income) to more reasonable values. One approach would be to route DK response through a series of screens seeking closer and closer gross estimates for the financial questions.

The highest student-level DK statistics in Sections H and I (rates ranging from 3 to 14.6 percent) were all associated with items requesting information about future plans or expectations: planned dates of application to, and entry into, graduate education; nature of job expected in 5 years; highest education ever expected; and likelihood of performing volunteer work in the next two years. While some uncertainties in these areas are expected, the rates observed are expected to reflect lack of sufficient prompting by interviewers for a "best estimate" response.

2. Up-coding "Other, Specify" Items

Potentially eight items were administered in the full-scale interview that included, in addition to the fixed response options, an "other" option for which the respondent could subsequently specify the nature of this other. Generally, the "other, specify" format

was restricted to either: (a) items for which data from NPSAS was already in that form, or (b) items for which this additional information was considered useful for subsequent classification or coding. (A number of additional questions contained an "other" option, with no allowance for subsequent specifications, because the field test experience indicated little additional information could be gained from the specification).

Choice of "other" options by respondents usually result from: (1) actual incompleteness of the existing fixed response options in covering a unique situation, or (2) misunderstanding by the respondent and/or interviewer of either the question or how a situation can be subsumed under an existing fixed response option. In the latter case, "other" is implicitly an inappropriate choice, and data can be corrected through a *post hoc* modification of the main item response, based on the verbatim information specified (if any) and other related data items (if any), a process typically called "up-coding". To ensure data quality, this manual operation was performed on approximately 650 occurrences of an "other" response to one of the eight involved questions. This exercise also can provide guidance for subsequent use of the interview items, for both BPS and other related studies; results of the up-coding are provided in Table IV.3. A large frequency of "other" options coupled with a large percent of upcoded responses is usually symptomatic of widespread interviewer and/or respondent misunderstanding.

As indicated in the table, the first "other, specify" item considered checked NPSAS eligibility of the sample member. Since a response of "other" to this item would exclude the respondent from the remainder of the interview due to ineligibility, these responses were checked (and up-coded, if needed) on a weekly basis throughout the data collection period. The frequency of occurrence of "other" responses to this item was quite small; however, two

Table IV.3 -- Summary of Up-Coding for "Other, Specify" Items

ITEM		Number Upcoded	Percent Upcoded
[A.11.d]	Other reason for being enrolled at NPSAS school [a]	2	11.8%
[A.16.b]	Other school classification	99	73.3%
[A.19.b]	Other race	193	78.5%
[A.19.d]	Other Asian type	18	41.9%
[A.20.d]	Other Hispanic type [b]	34	31.2%
[D.11.1]	Other type of company/organization for 1990 principal job	31	77.5%
[D.11.2]	Other type of company/organization for 1991 principal job	30	73.2%
[G.01.b]	Other type of company/organization for Spouse/Partner's FEB 1991 job	12	60.0%

NOTE: Analyses based on all cases indicating "other" as response to item, regardless of whether subsequently specified.

[a] Because this question was used in determining eligibility, upcoding was accomplished on a flow basis during interviewing.

[b] Thirty one of these resolutions resulted from cleaning the A.19.b data.

could fit into one of the existing options, and reflected interviewer error in not performing the up-coding during the interview. Both interviewers involved were counseled on this problem, and the situation did not occur again for those interviewers for the remainder of the study. Fortunately, both respondents were recontacted and interviews obtained.

The question asking (or verifying) school classification (e.g., freshman or first-year student, special student) during the NPSAS year resulted in well over 100 incidents of "other" responses. The bulk of these (almost three-fourths) were up-codable. Virtually all of the up-codings could have been resolved by interviewer prompting or judgement, and almost 15 percent of the specified text were virtually identical to an existing response option (reflecting inattention or instrument unfamiliarity on the part of the interviewers).

Considerable error existed in the "other" responses to questions related to race or ethnicity. The most problematic (probably because it was applicable to all respondents rather than subsets of respondents) was the question concerning race. The most frequently (about three-fourths) of the problems resulted from a confusion of race with ethnicity on the part of those of Hispanic descent. Specified other races included: Hispanic, Mexican American, Puerto Ricans, Spanish, Latino, Cuban, etc. Because of the extent of this problem and since interviewers were specifically trained not to accept "Hispanic" as a race, the matter was covered in interviewer debriefings. Interviewers indicated that in most cases respondents had been adamant about their response, refusing to change it even when advised that a subsequent question would determine Hispanic heritage. The solution suggested during the debriefing was to collect the Hispanic ethnicity information prior to the race information, so that respondents will be assured that their ethnicity has been recorded.

Other problematic "other race" specifications (that could be up-coded) also seemed to represent distinctions that respondents wished to make regarding mixed racial backgrounds (e.g., "Mulatto", "Amerasian", "Black and American Indian") or regarding ethnic heritage or nationality (e.g., "Arab", "Israeli", "Pakistani", "Hungarian"). These responses should have been clarified by prompts from interviewers (although some understanding of ethnographic racial classifications from some ethnicities could also have been helpful); however, if the insistence expressed by Hispanics were also possessed by these groups, then additional intervention may not have been effective.

The frequency of occurrence of "other Asian" responses is not large relative to the remainder of the variables in the table; however, it is large relative to the number of Asians in the sample. The fact that less than half of these could be up-coded reflects the inability of the relatively few existing categories could not be expected to capture the wide diversity of Asian descent; however, a number of mixture specifications were also present. Of those up-coded, almost a third were so similar to one of the existing categories that they should have been correctly coded by the interviewer. The remainder were either "Taiwanese" or "Hong Kongians", who for political reasons are sometimes reluctant to classify themselves as Chinese, or from "Pakistan" or "Bangladesh", for whom neither the interviewer nor the respondent apparently identified as Asian Indian (an existing classification).

Thirty one of the 34 up-codings accomplished for "other Hispanic" were resolved as part of the cleanup of the "other race" question; only 3 of the remainder could be up-coded.

The frequency of occurrence of "Central/South American" (N=42) and "Spanish" (N=28) suggest that such additional categories could be created, if desirable.

Although overall occurrence is relatively small, about 25 percent of the up-codings realized for the three type of company/organization items reflected lack of attention on the part of the interviewer, since they were extremely similar to one of the existing precoded categories. The bulk of the remaining up-codes could probably have been correctly classified with appropriate probing. Some up-codes, however, were accomplished only by use of responses from other items. One such item, applicable to the first two of these items but not the third, was name of employer. The fact that this item was not collected for spouse/ partner's occupation explains the lower up-coding rate for that item.

B. Reliability of Base Year Data

Examination of long-term response statistics focused on data items that were important classifiers and not expected to change across the two-year time period intervening between base-year and follow-up interviews. Such analyses are useful for assessing whether interview responses contain measurement error that are unstable over such repeated administration. For example, measurement errors might result if respondents are inattentive during either or both the survey interviews, if respondents interpret questions differently at different times, if respondents have trouble remembering information necessary to answer the questions, or even if responses are entered incorrectly by the interviewer. Relatively high indices of temporal stability would suggest that the NPSAS base year data and the BPS interview responses are relatively free from large measurement errors that vary across repeated administrations.

In some sections of the BPS:90/92 interview (see Appendix C), respondents were asked to verify whether or not certain demographic data collected in the base year were correct. These items included year and type of high school completion, gender, race, hispanic ethnicity, U.S. Citizenship, 1989 dependency status, and social security number. Only determinate NPSAS:87 data were verified (i.e., "don't know", refusal, and other missing values of base year data were not verified). Table IV.4 shows proportions of respondents reporting that base year data were incorrect and should be changed for these items.

Table IV.4 suggests that most of these base year data elements were highly reliable (where reliability is taken as 100 minus percent changed), comparable to the previously reported field test results. Seven of the eleven indicators required changes for no more than 2 percent of the respondents who provided base year data. This set of items included: high school completion status, and year of high school completion, birthday, gender, Hispanic indicator, U.S. citizenship, and social security number.

Four NPSAS:87 items were identified as incorrect for at least 3 percent of the people who provided base year verification; however, no incorrect base year data item examined was identified as incorrect by more than 6.5 percent of applicable respondents. The four least reliable items were: race, Asian type, Hispanic type, and 1989 dependency status. Estimates of change for the race and 1989 dependency status verification items were between 3 percent and 4 percent, which is still relatively low, implying acceptable levels of reliability. This somewhat higher rate for race is principally attributable to changes from the "other" race

Table IV.4 -- Reliability of Base Year Data: Percentage of Preloaded Demographic Items that were Changed in the Interview

Demographic Item	Percentage Changed	Number Responding
High School Completion Status	0.4	9,128
Year Received High School Completion	1.0	9,072
Birthday	0.5	6,444
Gender	1.0	6,448
Race	3.3	6,417
Asian Type	6.5	247
Hispanic Indicator	1.6	6,085
Hispanic Type	4.3	349
U.S. Citizenship	0.7	6,416
1989 Dependency Status	3.7	2,001
Social Security Number	2.0	6,007

NOTE: Results are based on 9,137 sample members (including non-FTBs) who: (1) completed at least Section A of the questionnaire and (2) provided determinate base year data. Because some items were skipped and others not needed, counts of total cases on which percentages are based are given.

category to a specific existing category (reflecting instructions to interviewer to probe for a better classification when "other" had been reported previously). This somewhat higher rate for 1989 dependency is partially due to a somewhat tighter definition of "dependent on parent(s)" in the BPS:90/92 follow-up instrument. Another likely factor (suggested in subsequent results) is the distal nature referent year (1989) at the time of the 1992 follow-up.

Estimates of change for Asian type and Hispanic type verification items were larger, ranging between 4 percent and 7 percent, but still quite acceptable. As indicated in Table IV.4 these estimates are both based on relatively small numbers of respondents. Thus, the estimates of change are more variable than estimates based on the larger numbers for other items. Nonetheless, reliability of these items in the full-scale study are improved over those of the field test. Again, a majority of the changes were from "other" to a precoded category (reflecting emphasis placed on this by interviewers).

C. Reliability Reinterviews

Correlation analyses and other approaches were used to estimate response stability across the relatively short (typically two to six weeks) reinterview time frames. Again, analyses generally focused on data items that were important to the study and not expected to demonstrate much real change between interviews. Because these analyses were restricted to cases with determinate responses to the applicable items on both interviews, the base number of applicable cases can vary from analysis to analysis; consequently, effective sample sizes are presented for all results.

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Proportions of agreeing responses across the main interview and the reinterview were calculated separately for each item. For all results presented, the proportion of agreeing responses is provided for each selected item. Proportions of agreeing responses were calculated as follows: (1) for nominal and ordinal variables, agreement proportions were computed based on the number of responses that were *exactly the same* across the main interview and reinterview; (2) for continuous variables, agreement proportions were computed based on the number of responses that were *within one standard deviation unit* of each other across the main interview and the reinterview.[70]

Overall reliability coefficients were also computed for each selected item. Three measures of temporal stability were used: (1) Cohen's Kappa statistic was computed for variables with nominal properties, including dichotomous and multicategory items;[71] (2) Spearman's rank order coefficient was computed for variables with ordinal properties; (3) Pearson's product moment correlation coefficient was computed for variables with interval or ratio properties.

Reliability analyses were implemented conditional on the appropriate subset of respondents and responses. For example, analyses of term-specific or job-specific responses were implemented only after checking to ensure respondents were reporting on the same term or the same job across the two interviews. Similarly, some portions of the CATI interview program for the main interview made use of early respondent answers to fill in later answers. Reliability analyses excluded responses that were automatically filled by the CATI program.

1. Enrollment at the NPSAS School

Respondents were asked to correct and/or update base-year data about terms at the NPSAS school and to provide information about additional terms at that school since the base-year study. Results in Table IV.5 reflect high levels of temporal stability reports of selected aspects of NPSAS enrollment. Ninety nine percent of the students gave interview and reinterview reports of number of terms at the NPSAS Institution that were within one standard deviation of each other. The test-retest correlation for number of NPSAS terms was also high, (R=0.92). Agreement between the beginning and ending dates for both the first and the most recent NPSAS term were also high. For first and most recent term dates, agreement proportions ranged from 0.96 to 1.00 and test-retest correlations ranged from 0.82 to 0.99. These results are generally comparable to those for the field test. The somewhat lower reliability of the "last term" data is also consistent with the field test findings.

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[70] The method used to compute percentage agreement for continuous variables means that it was possible to obtain a relatively high percent agreement and a relatively low test-retest correlation. This pattern of results occurred when variance in main interview and reinterview responses is high relative to the covariance between interview and reinterview responses.

[71] Cohen's Kappa estimates percentage agreement among nominal responses, beyond the level of chance agreement, based on marginal response probabilities. From the definition of Kappa, the statistic is valued as zero when both observed proportions and expected proportions are equal to .5. Kappa is undefined when there is perfect agreement between main interview and reinterview responses (so that expected proportion = 1. A low kappa value can be obtained when percent agreement is high, if the small number of disagreeing responses are not distributed across responses, but rather are associated with a single response alternative.

Table IV.5 -- Consistency Across Interviews: Terms at NPSAS School

	Number [a]	Proportion Agreement	Pearson Correlation
Number of Terms: NPSAS	191	.99	.92
First NPSAS Term			
Start Year	169	.98	.91
Start Month	165	1.00	.99
Last NPSAS Term [b]			
Start Year	165	.98	.91
Start Month	165	.96	.82

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

[b] Respondents with only one term at the school were excluded from these analyses.

Table IV.6 -- Consistency Across Interviews: Information About Other Schools

	Number [a]	Proportion Agreement	Pearson Correlation
Total Number of Other Schools [b]	191	.97	.88
Principal Other School	40	1.00	NA
Number of Terms: Other School [b]	191	.99	.98
First Other School Term			
Start Year	65	1.00	.95
Start Month	65	.98	.98
Last Other School Term [c]			
Start Year	65	1.00	.96
Start Month	65	.98	.92

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

[b] Includes "no schools" and "no terms", and those applicable to all cases.

[c] Respondents with only one term at the school were excluded from these analyses.

2. Enrollment at Other Schools

Respondents were also asked to update/correct any prior information about terms at schools other than the NPSAS school. Response stability statistics for terms at other schools are provided in Table IV.6. While only 65 individuals identified other schools in both interviews, statistics for total number of other schools identified and total terms at those schools were examined for the full group, with "zero" as a legitimate value. Six of the 191 respondents identified a number of other schools more than one standard deviation different in the two interviews, yielding a correspondingly reduced correlation of slightly less than .9. A large portion of this distortion resulted from multiple entries of the same school during the production interview by some less experienced interviewers used for production (generally such errors were easily corrected during general data file editing, and should not be reflected to any major extent in the edited data files), which is reflected in the higher measures of agreement for total number of terms (R = .98).

Where other schools existed, respondents were asked to identify which (if any) of the other schools were considered a primary school, and of those which was the principal other school. Among the 40 cases identifying such a principal school in both interviews, complete agreement existed between the two responses[72].

Otherwise, the results for terms at other schools are similar to the results for the NPSAS school. The stability statistics were high, generally much higher than results obtained in the field test (probably due to changes in the CATI program to obtain these data in a more straightforward manner). Agreement between the beginning dates for both the first and the most recent NPSAS term are high. Agreement proportions for term start dates ranged from 0.98 to 1.00, and test-retest correlations ranged from 0.92 to 0.98. One notable difference between NPSAS and other school results is that statistics for the most recent term start date at other schools were higher than analogous measures for the most recent NPSAS term. This is probably due to term recency. Among respondents attending more than one school, the most recent other school term was generally more proximal than the most recent NPSAS term.

3. Information About Terms Since February 1990

Reliability reinterviews collected information about first and most recent terms of enrollment at the NPSAS school since February, 1990. For most recent term, information was requested on number of courses each term, student classification, whether the respondent was working toward a degree, the type of degree (academic or occupational) and whether the degree was completed. Number of courses for the first term at the NPSAS school was also collected. Table IV.7 presents measures of temporal stability for these items. Although percentage agreement was high for number of courses reported for the first and most recent NPSAS school terms (reports of numbers of courses were within one standard deviation unit of each other for at least 94 percent of the relevant respondents), the test-retest correlations were low (R=0.35 for first term reports, and R=0.44 for most recent term reports). These results suggest (at worst) that there is considerable unreliability in reports of number of

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[72] This involved visual comparison of alphabetic responses; no correlational statistic was produced.

Table IV.7 -- Consistency Across Interviews: Information On Terms Since February 1990

	Number [a]	Proportion Agreement	Relational Statistic [b]
Number of Courses			
First Term	160	.94	.35 [c]
Last Term [d]	131	.95	.44 [c]
Other Last Term Information			
Student Classification [e]	132	.75	.75
Working Toward Degree	132	.89	.62
Degree Type	132	.81	.71
Complete Academic Degree	89	.82	.15

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

a Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

b Unless indicated, the relational statistic is Cohen's Kappa Statistic.

c Pearson product moment correlation.

d Not analyzed if different last term in the two interviews or if only one term since February 1990.

d Kappa statistic used to measure relationship since the categories "special student" and "other" are not part of the otherwise ordinal scale.

courses taken but that most variation in responses are well within one standard deviation. It is strongly suspected that the low correlations are an artifact of a modification in the way of identifying the term of reference in the production and reliability interviews. For the production interview, the information was collected for each term, as the terms were identified sequentially, with specific reference to the dates of the term. To save administration time, these data were only collected for the "first" and "last" terms in the reliability reinterview (see Appendix C). This hypothesis is supported by the field test results (in which data were collected exactly the same way in both production and reliability interview), for which reliability coefficients for these same data elements ranged from about .80 to .85. Consequently, the low correlations obtained for the full-scale study are not considered a major concern.

The student classification during the last term was not evaluated in the field test and the reliability indices obtained, while acceptable, are marginal. (Although most student classifications could be treated as ordinal, two nominal categories -- special student and "other" -- existed; consequently, the Kappa statistic is used as the relational statistic.) Again it is considered likely that the alternative method of obtaining this information in the production and reliability interviews (sequentially over terms in the former and one-shot "last term" in the latter) degraded the reliability statistics for this item.

For the remaining data elements presented in Table IV.7, results are acceptably high and completely comparable to the information obtained in the field test. Because of the nature of some of the joint distributions considered, the proportion of exact agreement is considered

more appropriate for these data elements than the Kappa statistic for these variables. Of particular note in this regard are the statistics for academic degree completion during the most recent term, with a high percentage agreement and a very low Kappa coefficient. This pattern occurs when there are relatively few disagreeing responses and disagreements are located in isolated cells of the reinterview design.

In the case of academic degree completion, 81 percent of the 89 relevant respondents consistently reported that they did not complete their degree during the most recent term. The few remaining were not evenly distributed across the other cells in the reinterview design. Since the Kappa statistic "controls" for marginal distributions, a low Kappa statistic can be obtained even though percentage agreement is high. Given the distribution for this item, the low Kappa value is not alarming. The high proportion of consistent responses suggests that temporal stability is acceptable. In fact, examination of the distributions and other data suggest that even the proportion of agreement for this data element may be artificially low. Of the no-yes cases, over half were currently enrolled in their last term when interviewed first and had completed this term by the time the reliability study was conducted. Given the question wording, it is quite conceivable that these sample members had reported legitimately that they "had not completed the requirements" in the first interview but had by the second.

4. Education Services at the NPSAS School

A large set of items in the BPS first follow-up interview asked about student use of, and if used satisfaction with, services provided by the NPSAS school, and how such services were provided (Service Format: either group sessions or individual sessions) and by whom (Service Provider: aid offices, faculty, other students). Table IV.8 contains measures of temporal consistency for these items.

Agreement proportions and reliability coefficients are, at best, moderate for items on service satisfaction. While simple satisfaction scales are notoriously unreliable (particularly in telephone administration, where response categories are not immediately available for reference), and while some of these items were also subject to "order effects" (see below Section IV.E) it is expected that at least part of the unreliability of these items are reflected in an attempt to combine use and satisfaction into a single response[73]. This hypothesis is supported by the higher reliability indices obtained in the field test for comparable items, where combination of use and satisfaction was not attempted. There is a definite indication here that a better method of presenting these items in subsequent follow-up studies could improve reliability of the data collected.

Agreement proportions were generally somewhat higher for the other service-provision data elements; however, in some cases, they were still suggestive of only marginally

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[73] In the field test, satisfaction was collected without use data; consequently dissatisfaction could not be appropriately attributed; it could have resulted from nonavailability, nonuse, or actual dissatisfaction with a provided service. The combination of use in this variable (so that non-used services were not rated for satisfaction) was an attempt to solve the problem recognized in the field test.

Table IV.8 -- Consistency Across Interviews: Education Services at NPSAS School

	Number [a]	Proportion Agreement	Relational Statistic [b]
Use/Satisfaction [c]			
Remedial Instruction	180	.57	.28
Academic Counseling	180	.57	.42
Career Counseling	180	.62	.45
Frequency of Use			
Remedial Instruction	45	.62	.63 [d]
Academic Counseling	111	.64	.57 [d]
Career Counseling	84	.64	.58 [d]
Service Provision			
Remedial Format	15	.40	.10
Academic Format	87	.79	.54
Career Format	57	.70	.47
Remedial Provider	15	.67	.23
Academic Provider	87	.90	.62
Career Provider	57	.65	.24

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

[b] Unless specified otherwise, statistic used was Cohen's Kappa.

[c] Kappa Statistic used since category "didn't use" is not part of the otherwise ordinal scale.

[d] Spearman rank order correlation.

acceptable reliability. In particular, information about use and nature of remedial instruction are consistently marginal. It should be noted that the proportion agreement index and the correlational index of reliability are most consistent for the frequency of use variables, where rank order correlation was used. Again, anomalous properties of the joint distributions artificially deflate the Kappa statistic, so that proportion agreement is the more relevant index for reliability considerations.

Proportion agreement across interviews for use of the three types of services considered are marginal, ranging from .62 to .64. (Again, order effects were observed for some of these variables--see Section IV.E.) It should be noted that the sample sizes for these analyses are reduced from those available for satisfaction, due to the fact that individuals responding "didn't use" to the satisfaction question (administered previously) were filled in as "never" for this frequency of use variable. Because computer assigned responses on either administration were excluded from analysis, the sample contributing to reliability statistics here are those who provided satisfaction responses other than "didn't use" on both administrations. A major suspected culprit for the low reliability of these items is the specific response options used:

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"never", "1-3 times", and "4 or more times". Considering the potentially fine determination between the last two of the response alternatives, particularly with a frame of reference of the 1989-90 academic year (approximately two years prior to the administration of the question), it is not particularly surprising that percent agreement and correlations were low. Examinations of the data supported this hypothesis, since the bulk of disagreements were switches between the last two categories.

Statistics for format (group or individual session), and nature of provider, of services show a somewhat improved proportion of agreement, particularly for academic counseling. Effective sample sizes are again reduced however to those who responded "used" in both interviews; "don't know" or "refusal" to format or provider in either interview also excluded the case from analysis. The reduction in sample size for remedial instruction is so severe that statistics for those variables are virtually meaningless. Reliability of these data elements for academic counseling is quite acceptable; however, that associated with career counseling is still marginal.

5. Factors Related to Education Financing

A number of BPS questions were directed toward information related to respondents' educational financing. Table IV.9 presents temporal consistency results for selected items in this area. The reliability indices are generally quite high with agreement percentages ranging rom 0.92 to 0.98. Kappa statistics were also high (or at least acceptable) with two notable exceptions: reports of employer benefits during the first NPSAS term, and reports of employer benefits during the most recent NPSAS term.

As noted before, this pattern of high agreement and low Kappa values can occur when a large number of respondents are located in a single cell of the reinterview design, which is the case here. In the case of employer benefits during the first NPSAS term, 93 percent of the 70 relevant respondents consistently reported that they did not receive employer benefits during their first NPSAS term. In the case of employer benefits during the most recent NPSAS term, 88 percent of the 57 relevant respondents consistently reported that they did not receive employer benefits during their most recent NPSAS term. In both cases, the few remaining respondents were unequally allocated across the other three cells in the reinterview design, yielding low Kappa values even though percentage agreements were high. Given the response distributions for these items, low Kappa values are anomalous and should be ignored.

In addition to receipt of financial aid, respondents were asked to identify whether or not they used personal or family resources ("yes" or "no") for financial support of their education. Reliability indices for these sources is provided in Table IV.10. Proportion agreement are quite satisfactory, ranging from .87 to .98 for all but one of the sources. The somewhat lower proportion agreement for parental gift (p=.82) is still within acceptable limits. Kappa statistics are somewhat lower, but they are again depressed by anomalous features of the joint distributions (for example, the bulk of the joint responses for loan from relative was "no" and "no").

In light of the heavy focus of this study on financial aid, the high reliability of these items is very encouraging. At least one contributing factor to the high reliabilities obtained

Table IV.9 -- Consistency Across Interviews: Factors Related to Education Financing

	Number [a]	Proportion Agreement	Relational Statistic [b]
First NPSAS Term			
Where lived	131	.95	.91
Any Aid Received	130	.98	.95
Type of Aid Received			
Grant	70	.94	.82
Scholarship	70	.96	.88
Loan	70	.95	.83
Employer Benefits	70	.96	.02
Last NPSAS Term			
Where lived	131	.92	.89
Any Aid Received	130	.97	.94
Type of Aid Received			
Grant	57	.94	.85
Scholarship	57	.98	.93
Loan	57	.95	.73
Employer Benefits	57	.95	.21
Total Amount Borrowed	81	.97	96 [c]

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

[b] Unless indicated otherwise, the relational statistic for these variables is Cohen's Kappa.

[c] Pearson's product moment correlation.

Table IV.10 -- Consistency Across Interviews: Personal and Family Financial Support

	Number [a]	Proportion Agreement	Kappa Statistic
Own Earnings or Savings	175	.86	.55
Spouse Earnings or Savings	175	.98	.76
Parental Gift	175	.82	.56
Parental Loan	175	.87	.54
Relative Gift	175	.88	.64
Relative Loan	175	.95	.40

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

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here is the emphasis placed during interviewer training (and during subsequent monitoring and supervision) on obtaining good educational financing data. This is reflected in the markedly higher reliability indices obtained here relative to the field test (during which emphasis was not as great).

6. Work Experience

The BPS interview also collected several respondents' work experiences. The data element considered in Table IV.11 focus on reports of any job participation, number of jobs reported, and dates of employment and employment status (full- or part-time) for respondents' first and most recent jobs.

Agreement proportions are comparable to field test results and are generally acceptable ($.74 \leq p \leq .92$) for all but one of the data elements. For start month of first job, proportion agreement is only .56; however the Pearson's R for that variable is acceptably .79, suggesting that while reports are not exactly the same, they are closely related in the two administrations. Generally, information about the first job (a point more distant in time) is less reliable than information about the most recent job, as expected. As seen before, Pearson correlations are more closely related to associated proportion agreement than the Kappa statistics. Again, this results from joint distributional artifacts. Note that for report of any job, Kappa is .55, but proportion agreement is .92. For this variable, 86 percent of the relevant 192 respondents consistently reported holding at least one job, during both interviews. The few remaining respondents were unequally allocated across other cells in the reinterview design.

Table IV.11 -- Consistency Across Interviews: Job Information

	Number [a]	Proportion Agreement	Relational Statistic [b]
Any Job Reported	191	.92	.55 [c]
Number of Jobs	129	.70	.87
First Job			
Start Year	164	.79	.75
Start Month	129	.56	.79
Part or Full Time	129	.84	.65 [c]
Last Job [d]			
Start Year	63	.86	.75
Start Month	57	.74	.68
Part or Full Time	53	.87	.70 [c]

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

[b] Unless indicated otherwise, the relational statistic is Pearson's Product Moment Correlation Coefficient.

[c] Cohen's Kappa Statistic.

[d] Not analyzed if only one job reported.

Reliability indices for primary job during 1991, as reported in Table IV.12, are quite acceptable (excepting recurring Kappa statistic anomalies); however, statistics are unstable due to small effective sample sizes and should be considered only suggestive. Questions were not asked about primary jobs held prior to completing (or leaving) PSE unless the respondent identified him/herself as principally an employee going to school; also, if there was only one job in 1991, that job was designated primary by the CATI program (and thus not analyzed). Consequently, only about 10 percent of the reliability sample were eligible for this analysis.

Table IV.12 -- Consistency Across Interviews: Primary Job

	Number [a]	Proportion Agreement	Kappa Statistic
Primary Job Identified	20	.80	.59
Job Domain	20	.80	.63
Type of Company	19	.95	.81
Employer Provided Education Benefits	20	.95	.64

NOTE: Statistics based on applicable cases of the 191 sample members participating in the reliability reinterview, or appropriate subsets where indicated.

[a] Inapplicability of item or indeterminate responses on either administration excluded case from analysis.

D. Validation of Individual Responses through Institutional Data

The study design allowed some validation of interview responses against information provided by institutions; however, institutional data collection was quite minimal and involved only the subset of NPSAS:90 schools offering at least a 4-year program offering. Specific information collected from these schools (see Appendix B) consisted of: (1) an indication of student current enrollment status (currently enrolled, previously graduated/completed program, or previously left school without completing course of study), and (2) if not currently enrolled, date last attended (end of last term) or graduated. Data from institutions were taken as "true" values against which to validate student responses; however, obvious potential for error exists in the school data. Consequently, the validity estimates are somewhat attenuated.

Comparable operational definitions of student data were constructed from the interview data specific to the NPSAS school. Because institutional data were collected over a relatively long period of time, some latitude was allowed in creating student enrollment status; specifically, the following definitions were applied to the student data.

- Currently enrolled: student reported at least one term of enrollment at NPSAS:90 school (item B.1.a) beginning or ending during the period when institutions provided student enrollment data (December 1991 through June 1992).
- Not enrolled but completed program: student's last reported term at NPSAS:90 school (item B.1.a) ended prior to June 1992 *and* student reported completing all work on his/her degree/award during or before that term (items B.7.h and B.7.m).

- Not enrolled and did not complete program: student's last reported term at NPSAS:90 school (item B.1.a) ended prior to June 1992 *and* student indicated not completing all work on degree or award during that term (items B.7.h and B.7.m).

These constructed student-level enrollment status variables were examined for congruence with the institutionally provided enrollment status.

Also, dates of last NPSAS:90 school term reported by students were compared to the dates reported by the institution (for those who were reported to have left the NPSAS:90 school). Results are provided in terms of the Pearson Product Moment Coefficient and percent of agreement between rescaled[74] responses (as with the reliability analyses, these continuous responses were considered to be in agreement if they were within one standard deviation of one another).

Results of the validity comparisons are provided below; however, it should be reemphasized that operationalized student-level status variables do not necessarily correspond one-to-one with the institutional categorical responses. In some instances, the student data definitions tend to be more lenient (e.g., the spread of dates allowed in determining current enrollment); in others they are more stringent (e.g., completion of a certificate in water safety during last term may have been classified as completion of course of study). Also recall (from Section IV.C) that the term-specific data used in creating student-level variables were themselves not perfectly reliable, which initially reduces the possible value of validity indices.

Student-reported enrollment at NPSAS:90 schools by institution-reported enrollment status, is shown in Table IV.13. Institutions reported almost three-fourths of the students as "currently enrolled." Another fourth of the students were identified by institutions as having left school before completing their program, and only a very small percentage (1 percent) exited after completing their program.[75]

Most student reports of enrollment status were consistent with those of the institutions. As shown in Table IV.13, over 90 percent of students, who were classified by their institutions as "currently enrolled," reported themselves to be enrolled during the same time frame. Similarly, over 87 percent of the combined student groups reported to have left the institution reported not being enrolled; the percentage was somewhat smaller (82 percent) when considering only students reported to have graduated.

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74 Rescaling involved conversion of all year/month variables to an interval scale of relative months.

75 Such early completion is possible for 2-year and 3-year programs offered by many 4-year institutions.

Table IV.13 -- Comparison of Institution- and Student-Reported Enrollment Status

Institution- Reported Student Enrollment Status[a]	Student-Reported Enrollment between 12/91 and 6/92					
	All Student Reports		Enrolled		Not Enrolled	
	Count	Column Percent	Count	Row Percent	Count	Row Percent
All Institution Reports	3,316	100.0	2,340	70.6	976	29.4
Currently enrolled	2,466	74.4	2,230	90.4	236	9.6
Not enrolled but completed program	34	1.0	6	17.6	28	82.4
Not enrolled and did not complete program	816	24.6	101	12.4	715	87.6

Note: Statistics based on the 3,316 sample members with both NPSAS:90 institutional report and a determinate student report. Read as: of the 2,466 students reported by institutions as "currently enrolled," 2,230 (90.4 percent of the 2,466) reported enrollment during the institutional data collection period.

[a] Data collected from schools between December 1991 and June 1992.

Student-reported degree completion was also validated against the institutional reports. Analyses were performed separately for the two groups reported to have left the NPSAS:90 school (i.e., those completing and those not completing). Table IV.14 presents student-reported final term and completion status among students reported to have left school without completing degree requirements. It should be noted that all students reported last enrollment prior to June 1992. About 90 percent of the group also reported not having completed degree requirements.

It is expected that some disagreement with institution status reflects a misinterpretation by some students of the question. During debriefing, interviewers reported some instances of students incorrectly interpreting the question ("Did you finish all work for the degree or award during this term?" [B.7.m]). They were interpreting it as "Did you complete all *courses leading to* the degree or award during this term?" Other disagreements result from some students reporting work on "incidental" certificates (e.g., "life saving certificate" in PE). Completion of such a certificate during the last term would have resulted in a student-reported "completion" (but obviously would not have been classified as "graduated" by the institution).

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Table IV.14 -- Student-Reported Program Completion Rates for Students Identified by NPSAS:90 School as Having Left Without Graduating

Final Term Completed Prior to 6/92	Program Completion Status					
	Total		Completed		Not Completed	
	Count	Column Percent	Count	Row Percent	Count	Row Percent
Total	816	100.0	83	10.2	733	89.8
Yes	816	100.0	83	10.2	733	89.8
No	0	0.0	0	0.0	0	0.0

Note: Statistics based on 816 sample members with both a NPSAS:90 institution report of "left without graduating" and a determinate student report. Read as: all of the 816 students reported by institutions as no longer enrolled and not having completed their program also reported their final term ended prior to the end of the institutional data collection period; of these, 733 (89.8 percent of the 816) also reported not completing their level of study during their last term.

Table IV.15 presents student-reported final term and program completion status among students whom the NPSAS:90 institution reported as having completed program requirements. All of these students also indicated a last term prior to June 1992; however, about one third of the students reported not completing requirements of their program during their last term -- in direct conflict with the information provided by their school. Given the small number of cases involved (N=34), this is not considered a major problem; however, some of this disagreement can also be attributed to a problem with the completion question that was uncovered during interviewer debriefing. Specifically, some respondents indicated they completed all course requirements for the award during the last term, but did not receive their award/degree until later (and they answered non-completion during the last term).

Table IV.15 -- Student-Reported Program Completion Rates for Students Identified by NPSAS:90 School as Having Graduated

Final Term Completed Prior to 6/92	Program Completion Status					
	Total		Completed		Not Completed	
	Count	Column Percent	Count	Row Percent	Count	Row Percent
Total	34	100.0	23	67.7	11	32.4
Yes	34	100.0	23	67.7	11	32.4
No	0	0.0	0	0.0	0	0.0

Note: Statistics based on 34 sample members with both a NPSAS:90 institution report of "graduated" and a determinate student report. Read as: all of the 34 students reported to home completed their program also reported their last term prior to the end of the institutional data collection period; of these, 23 (67.7 percent of the 34) reported completion of program during their last term.

For students identified as having left the NPSAS:90 school and reporting last terms at that school ending prior to June 1992 (i.e., within the time frame of institutional data collection), percent agreement and correlations were computed between student- and institutionally-reported last date of enrollment. The results of these analyses are reported in Table IV.16.

Proportion agreement of student and institutional responses (within one standard deviation unit) equalled or exceeded .80, and raw correlations were between .65 and .75. Also shown in Table IV.16 is a corrected correlation[76] accounting for the attenuation due to unreliability of the student report of last term at the NPSAS:90 school. These correlations all exceed .70.

Table IV.16 -- Agreement between Student- and Institutionally-Reported Date of Last Enrollment

Institutionally Identified Group	Count	Proportion Agreement [a]	Pearson Correlation	Corrected Correlation [b]
Total not enrolled	756	0.80	0.65	0.72
Left after completion	23	0.87	0.75	0.83
Left without completion	733	0.80	0.65	0.71

NOTE: Statistics are based on the 756 cases identified by institutions as not enrolled *and* who provided term information for which last term ended prior to June 1992.
[a] Agreement is considered as within one standard deviation unit.
[b] Corrected for attenuation associated with unreliability of student report of last term year and month.

On balance, the results of the validity analyses are quite encouraging, particularly in light of assumptions made in creating student variables, potential for error in "true" values, and previously reported reliability of "term" data. For the small subset of variables examined, validity seems to be within acceptable limits. There are, however, clear indications that improvement in subsequent studies can be obtained by reworking the questions relating to "completing program requirements" during the last term at any given school.

E. Order Effects

Several questions in the BPS:90/92 interview requested "scale value" ratings for each of several subitems (e.g., an importance rating -- not important, somewhat important, very important -- to each of several factors that could affect decisions about respondents' life

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[76] Correction for Attenuation is given by $\rho x_t y_t = \rho\, x_o y_o \,/\, \sqrt{\rho xx' \rho yy'}$ where the t subscript indicates true scores, the o subscript indicates observed scores, and the denominator term involves the reliabilities. Institutional reliability was assumed to be 1 for this purpose and reliability of student-reported last term was taken as .82 from previously reported results.

work). Responses to such questions can frequently be contaminated by changes in the respondent's response propensities for a particular subitem depending on the order in which it is administered.

Changes in response propensities can result from general factors (i.e., becoming familiar with, or anchoring, the response options; or a well known tendency of individuals to become less extreme in their responses over a sequence of rankings) or from factors specific to the set of subitems being administered (e.g., changes in interpretation of the meaning of the subitem within the context of previously administered subitems). Both of these effects are more likely in verbally administered questions than in those administered visually; the latter situation (typically presented as a matrix item) allows the respondent to view all subitems and the response options in a single gestalt rather than receiving them strictly sequentially[77].

To control for order effects, sequential subitems within five of the first follow-up interview items (B.8.a, B.9.a, B.8.b, B.9.b, and H.10), were presented to respondents with a random start point within the sequence. The random start point was computer-generated "on the fly" during the CATI interview. Because of the nature of the random start point generation, control of the distribution of start points over different types of students (e.g., level and control of NPSAS school) was stochastic rather than deterministic.

In this section, the presence and nature of order effects within these items are examined. Supplemental order-effect results are presented in Appendix G, and tables in that appendix are referenced in the discussion here. While ratings to some of these subitems have ordinal properties, others have only nominal properties. For consistency over all analyses, an analytic tool applicable to the nominal data was used (despite loss of some analytic power). Specifically, within each set of subitems, the joint distributions of responses by different random start points were examined, using the χ^2 test of independence (equivalent to a test of congruence of conditional distributions within each start-point group). A significant value of the χ^2 statistic indicates differential conditional distributions and suggests order effects. Because multiple tests were to be performed within each major question, a significance level of .005 was adopted. Analyses for a given set of subitems were restricted to those respondents who provided determinate response to *all* subitems in the set.

Questions B.8.a and B.8.b asked for "per-term" frequency ("never", "once", "several times", or "often") of participation in 11 different activities, while at the NPSAS School and principal other primary school (if any), respectively. Since the same set of activities could be presented in two separate questions, for NPSAS school first and then for principal other school (where applicable), it was expected that order effects would be negligible for the second administration (since any general or specific effects should have stabilized following the first administration). Order effect results for these two items are shown in Table IV.17.

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[77] Respondents also typically change previous responses more frequently for these types of items when the question and responses are written.

Table IV.17 -- Summary of Analyses for Order Effects in Items Regarding "Per Term" Frequency of Participation in Specific School-Associated Activities

Activity [a]	χ^2 Value School 1 [b]	χ^2 Value School 2 [c]
Have Academic Discussions with Faculty Outside Class	105.8 [d]	19.0
Meet with Advisor about Academic Plans	103.8 [d]	25.1
Have Informal/Social Contacts with Advisor/Faculty Outside Class/Office	107.1 [d]	47.4
Participate in Study Groups with Other Students	47.0	22.8
Have Social Outings with School Friends	32.0	27.5
Participate in Student Assistance Centers/Programs	64.9 [d]	58.2 [d]
Participate in School Clubs	24.5	26.3
Attend Academic Lectures/Conventions/Field Trips with Friends	26.4	40.1
Participate/Practice with Others for Music/Drama/Choir	32.4	29.3
Participate/Practice with Others for Non-varsity Sports	29.7	43.2
Participate/Practice with Others for Varsity Sports	52.2 [e]	27.7

NOTE: Separate χ^2 analyses were conducted for each activity, examining the joint distributions of random start point by response option. With 11 possible start points and 4 response options, degrees of freedom were 30 for all χ^2 values.

[a] Subitems were for Question B.8.a (NPSAS School) and B.8.b (principal other primary school -- if any).

[b] NPSAS school (total N = 6,054); on average, about 550 cases per random start point.

[c] Principal other primary school, if any (total N = 1,217); on average, about 111 cases per random start point. Where expected frequencies less than 5 were excessive, χ^2 values were non-significant; consequently, the situations are not problematic.

[d] $p \leq .005$.

[e] $p \leq .01$.

With 4 response options and 11 different start points, the degrees of freedom for the χ^2 variable was 30 for both of the questions. A total of 6,054 respondents contributed to the NPSAS school analysis and 1,217 contributed to the principal other school analysis. Starting point groups ranged in size from 525 to 581 for the NPSAS school analysis and from 96 to 120 for the other principal school analysis. Unequal group sizes resulted from the random variation in the random start point assignment process and from analytic exclusion rules. Excessive expected frequencies less than 5 were observed in two of the analyses for non-NPSAS school. In both cases, however, the associated χ^2 statistic was nonsignificant; and, since the danger of low expected frequencies is to artificially inflate the statistic, this occurrence is considered non-problematic.

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On the first presentation of the activities (for the NPSAS:90 school), significant χ^2 values (and presumed order effects) were found for 4 of the 11 activities; however, the statistic also approached significance for one additional item. Other χ^2 values shown for the NPSAS:90 school are more or less evenly distributed above and below the expected value (equivalent to the degrees of freedom, 30) of the applicable χ^2 distribution, suggesting no major order effects. The response distributions within start group were examined for all 5 of the activities with significant (or near significant) departures from expectations; those distributions are provided as Tables G.1 through G.5 in Appendix G. For the NPSAS school analyses, assuming that the departures were not by chance (including chance assignment of different types of sample members to different start points), results suggested order effects principally associated with the respondent's frame of reference. General trends of responses becoming more extreme or less extreme were not observed.

All subitems involving interactions with faculty and/or advisor showed order effects, and in all these cases the bulk of the contributions to the χ^2 statistic could be attributed to those start points in which the subitem was presented first and/or last in the sequence. A markedly different distribution only when the item is administered first (occurring for "social contact with faculty/advisor outside of class/office[78]" and for "meeting with advisor about academic plans") suggests either: (1) the lack of a general frame of reference for rankings when starting or (2) the specific lack of frame of reference of the subitem immediately preceding it in the list (which is presented previously in every other order of presentation). For these specific subitems, the latter explanation seems more reasonable. The remaining subitem involving faculty or advisor, "have academic discussions with faculty outside of class", showed the most disparate conditional distribution (and consequently the greatest contribution to χ^2), when the subitem was administered last in the sequence, the only ordering in which the immediately following subitem (meeting with advisor about academic plans) has been previously presented.

The pattern of suggested order effect for these three subitems (particularly given the fact that none of the subitems showed significant effects for the second presentation of the list -- for the second applicable school) indicates that order effects will persist, regardless of the individual sequence in which they are initially presented. One possible solution would be to provide respondent with the full gestalt of the three subitems (in a transition screen) before administering any of them.

Two additional subitems showed suggested order effects for the first (NPSAS:90 school) administration of the subitems. The statistic for "Participating or practicing with others for varsity sports" approached statistical significance ($p<.007$), and, again, the major contribution to the χ^2 value occurred when the item was presented first (see Table G.5). Since in every other presentation order the immediately preceding subitem (participation/practice in non-varsity sports) was given first, a reasonable explanation for the effect is the frame of reference given by the non-varsity subitem.

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[78] For this particular subitem, over three fourths of the contribution to the χ^2 statistic was attributable to those instances in which the subitem was administered first or second in the sequence.

"Participation in student assistance centers/programs" at the NPSAS:90 school also produced different distributions depending on the order in which it was presented; however, the nature of any underlying order effect here resists ready interpretation (see Table G.4). This particular subitem also showed significantly different conditional distributions for the second school (Table G.6), again with no reasonable simple explanation. Since, on the second (other than NPSAS school) administration, no other subitem showed significantly different order-related distributional properties, it is tempting to consider the second administration result as a Type I error chance occurrence[79].

Items B.9.a and B.9.b were similar to the items just discussed, in that the basic subitems were also presented twice (NPSAS:90 school first and other school second) where a second primary school was identified. The questions satisfaction with ("very dissatisfied", "somewhat dissatisfied", "somewhat satisfied", or "very satisfied") certain features of the school and services offered there. The nature of the subitems and a summary of order effect analyses for both first and second presentation of the set) are presented in Table IV.18.

With the exception of the first three listed and last two listed subitems, an additional response option, "not used", was provided[80]. For analyses of subitems containing the additional response option, the thirteen possible random start points and five response options defined a parent χ^2 distribution with 48 degrees of freedom; for the remaining five items with only four response alternatives, 36 degrees of freedom existed (as shown in the table). A total of 5,832 respondents were included in the analysis for the first (NPSAS school) presentation of the set; 1,175 for the second. In general the average number of respondents per random start group was 364 for the first presentation and 74 for the second[81].

As seen in Table IV.18, there were no significant departures of response distributions over random start groups for the second administration. For the first (NPSAS:90 school) administration, however, potential order effects were observed for three of the four subitems involving counseling services. The distributions for these three subitems are presented in Tables G.7 through G.9. For all these subitems disproportionately large contributions to the χ^2 statistic were attributable to the group in which the item was administered first. For "career and job counseling", disproportionate contributions to χ^2 also appeared when the subitem was administered last (the only order in which the following subitem, "job placement/recruitment services" was presented before it). The type of order effect pattern suggested here is similar to that discussed previously, regarding interactions with faculty and advisors; as is the potential for eliminating the effects.

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[79] By the nature of the random assignment, concentrations of certain types of students (e.g., from different types of schools, with different experiences or response propensities) in certain order groups is a possibility.

[80] The use of this nominal response in the response alternative set with the satisfaction scale was to assure that satisfaction was only expressed for services/activities in which the respondent had participated.

[81] Changes in the CATI program late in the refinement process led to an anomaly in the selection algorithm for the eighth and ninth listed subitems; for the former the selection rate was effectively 3 times typical, for the latter, two times greater.

Table IV.18 -- Summary of Analyses for Order Effects in Items for Satisfaction with (and Use of, Where Applicable) Specific Aspects of School Environment

Aspect [a]	School 1 [b]		School 2 [c]	
	χ^2 Value	DF [d]	χ^2 Value	DF [d]
The Ability of Most Teachers	38.2	36	34.0	36
The Social Life	45.3	36	41.9	36
Your Intellectual Growth	36.9	36	37.1	36
Special Tutoring or Remedial Instruction	54.3	48	44.5	48
Academic Counseling	98.0 [e]	48	59.1	48
Financial Aid Counseling	43.5	48	43.1	48
Personal Counseling	169.2 [e]	48	47.3	48
Career or Job Counseling	94.3 [e]	48	37.3	48
Job Placement/Recruitment Services	39.7	48	33.5	48
Cultural Activities, Music, Art, Drama, etc.	53.8	48	49.5	48
Sports and Recreational Facilities	65.5	48	38.8	48
The Financial Cost of Attending	46.1	36	24.1	36
The Prestige of the School	44.0	36	49.3	36

NOTE: Separate χ^2 analyses were conducted for each aspect, examining the joint distributions of random start point by response option.

[a] Subitems were for Question B.9.a (NPSAS School) and B.9.b (principal other primary school -- if any).

[b] NPSAS school (total N = 5,832); on average, about 364 cases per random start point, except for random starts at aspects 10 (N = 719) and 11 (N = 1,073).

[c] Principal other primary school, if any (total N = 1,175); on average, about 74 cases per random start point, except for random starts at aspects 10 (N = 124) and 11 (N = 246). This sometimes led to excessive occurrences of expected frequencies less than 5; however, this potentially χ^2-inflating situation was not problematic, given all tests were non-significant.

[d] All aspects had 13 possible start points and most had 5 response options ("not used" included) yielding 48 degrees of freedom for χ^2 values; some aspects, however, had only 4 response options ("not used" excluded) for 36 degrees of freedom.

[e] $p \leq .005$.

The final item examined for order effects (H.10) asked for the importance ("not important", "somewhat important", "very important") of 11 factors in determining the kind of work respondent planned to be doing for most of his/her life. With 11 possible random start groups and 3 possible response options, degrees of freedom were 20 for all analyses. Analyses were conducted for 5,974 respondents, with approximately 543 cases per random start group. The work-choice factors and a summary of order effect analyses is provided in Table IV.19.

Table IV.19 -- Summary of Analyses for Order Effects in Items Regarding Importance of Specified Factors in Determining Life's Work

Factor [a]	χ^2 Value [b]
Previous Work Experience in the Area.	110.9 [c]
Good Income to Start, or within a Few Years.	34.0
Job Security and Permanence.	29.6
Work that Seems Important and Interesting to You.	23.2
Freedom to Make Your Own Decisions.	62.5 [c]
Meeting and Working with Sociable People.	41.5 [c]
Having a Job that Has High Status and Prestige.	35.6
Having a Job where Most Problems Are Quite Difficult and Challenging.	21.6
Having a Job that Allows You to Establish Roots in a Community and Not Have to Move from Place to Place.	61.5 [c]
Having a Job that Leaves a Lot of Time for Other Things in Your Life.	21.8
Having a Job that Allows a Great Deal of Travel.	14.7

NOTE: Separate χ^2 analyses were conducted for each factor, examining the joint distributions of random start point by response option. With 11 possible start points and 3 response options, degrees of freedom were 20 for all χ^2 values.

a These subitems were part of Question H.10.

b Total N = 5,974; on average, about 543 cases per random start point.

c $p \leq .005$.

Four of the 11 work-determining factors yielded significant χ^2 values, some of which were reasonably easily identified as order effects (see Tables G.10 through G.13). For the importance of "previous work experience in the area", several potential order effects seem to be operating. There is a general trend of reduced propensity to rate this factor as very important as more and more factors are presented as a frame of reference; however, well over half of the contribution to the χ^2 statistic is accounted for when the item is administered either first or last in the sequence; the factor is seen as most important when administered first and least important when administered last (the only sequence in which the "good income" subitem is presented before it. The potential order effect for the "freedom to make your own decisions" factor is also quite straightforward. Considerably higher proportions consider this factor very important when it is administered first (over 60 percent of the total χ^2 value is contributed from the response distribution of those for whom the subitem was the first administered).

Significant departures of conditional response distributions were also detected for the factors "meeting and working with sociable people" and "having a job allowing establishment of roots"; however, the nature of the most disparate distributions (administered second or

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fourth for the former and second or tenth for the latter) do not suggest any simple effect due to order.

On balance, order effects are clearly indicated for these data, and the use of random start sequences is certainly justified to somewhat offset these effects, particularly in the first administration of a set of subitems. There is, however, a strong suggestion that certain effects are fairly straightforward and could be eliminated by proper ordering of the subitems. The question still remains, however, as to whether the random assignment procedure used in this follow-up sufficiently controlled for differential response propensities based on no more than the type of school attended. For future studies, a pre-CATI allocation of sample members to specific orders *within specific institutions* should allow better examination of these potential effects.

V. NON-RESPONSE WEIGHTING AND DATA FILE CONSTRUCTION

A. Data File Construction Summary

A restricted research file and several "public release" data analysis system (DAS) files were prepared from the student interview data collected in BPS:90/92 and NPSAS:90. Full documentation was produced for each of the files produced. This included item-level variable names, descriptors, screen wording or pseudocode, response categories with associated descriptors and frequencies (both weighted and unweighted), and sources for variables. In the remainder of this section an overview of data file construction activities and outcomes is provided.

Subsequent to data collection, the CATI data were edited and cleaned as part of the preparation of data files. Modifications to the data were made, to the extent possible, based on problem sheets submitted by interviewers which detailed item corrections, deletions, and prior omissions. Additionally, variables were checked for legitimate ranges and cross-item consistency.[82] Quality control coding corrections and school information from the IPEDS files were merged onto the CATI files, where appropriate, as part of the data file construction effort. Inconsistencies of the data identified during analyses were also corrected, as appropriate and feasible. Also, nonresponse-adjusted weights (see Section V.B) were added to the file. A number of derived variables were created to aggregate and/or simplify sets of related CATI data elements. Derived variables were also created to facilitate various analyses for the descriptive report and for incorporation in the public release DASs (all analytic variables included in any DAS were also included on the research file).[83]

Consistent missing data conventions were followed in producing all data files. Missing values were distinguished based on whether they were respondent "refusal", "don't know", legitimate skip within CATI, an unreached item for an incomplete interview, or an otherwise missing item. Negative missing code values were used for numeric fields, and special character codes were used for alphabetic fields.

Large numbers of the original sample of 11,700 were excluded from the BPS:90/92 data files. The vast majority of these were due to non-FTB or ineligibility determination as discussed above in Section III.C.3. Table V.1 shows a breakdown of the cases included in, and excluded from, the BPS:90/92 data files. The restricted research files consisted of data for 7,933 sample members.

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[82] While a considerable number of internal checks were built into the CATI program, inconsistencies were created by interviewers backing up through the instrument to change responses and by anomalies in the program that were not detected and fixed until after production began. Range checks were most important for counts reported by respondents (for which CATI internal range checks were conservatively large).

[83] An example set of derived variables is the enrollment/employment history vector, capturing whether a respondent was working and/or attending school between February 1990 and June 1992 on a monthly basis.

Table V.1 -- Specification of BPS:90/92 Database Sample

Group	Percent
Potential BPS:90/92 Sample (N=11,700)	100
Exclusions from Original Sample [a]	9
BPS:90/92 CATI Sample	91
Exclusions from CATI Sample [b] [c]	23
BPS:90/92 Data File Sample Size	68
Eligible Respondents	56
Eligible Nonrespondents [c] [d] and Nonrespondents with Undetermined Eligibility [e]	12

[a] Includes both sample members selected into the NPSAS:90 graduate student stratum and sample members selected into the NPSAS:90 first-professional student stratum.

[b] Includes determined non-FTBs, modeled non-FTBs, and deceased individuals.

[c] Seventeen cases determined to be Non-FTB during CATI were subsequently reclassified; here, these casess are included as eligible non-respondents in the data file sample rather than exclusions.

[d] Includes 18 cases for whom eligibility data was collected but insufficient additional data was collected for classification as partial respondent.

[e] Includes 2 hostile refusals who will be excluded from subsequent BPS:92 follow-up samples.

Restricted data files were structured as relational files, based on content, data use, and record size considerations; nine relational files were produced. Six files contained student-level information; one contained school-specific information; another contained term enrollment data, and the remaining file contained job-level data. Table V.2 shows the restricted file names, descriptors for each, and record basis.

B. Weighting and Nonresponse/Ineligibility Adjustments

BPS:90/92 is a longitudinal follow-up of the FTB respondents selected for NPSAS:90; consequently, the initial weights for the BPS:90/92 final sample were the final analysis weights from NPSAS:90. These NPSAS:90 analysis weights reflect both: (1) the students' overall probability of selection in the multistage/multitime NPSAS:90 sample (including a multiplicity adjustment for students that attended more than one institution during the 1989-90 academic year and, thus could have been selected into the sample from more than one institution), (2) weight adjustments to compensate for NPSAS:90 nonresponse at both the institutional and student level, and (3) a post-stratification weight adjustment to replicate the known population count of Pell grant recipients.

A total of 36 final NPSAS:90 weights existed for each sample member. One weight was for determining point estimate statistics and for estimating variances of those point estimates through Taylor Series approaches. The remaining 35 weights were for computing

Table V.2 -- BPS:90/92 Description of Restricted Research Data Files

Filename	Description	Record Basis
HEADER	Summary/demographic data	1 per eligible member
BPSMAIN	BPS main data file; non-alpha fields	1 per eligible respondent
BPSALPHA	BPS data alpha fields (not school related)	1 per eligible respondent
BPSALPH2	BPS data alpha fields (school related)	1 per eligible respondent
NPSASDER	Derived variables from NPSAS:90 data elements	1 per eligible respondent
BPSDER	Derived analytic variables from BPS data elements	1 per eligible respondent
SCHINFO	Information associated with given school	1 per school per eligible member
TERMINFO	School term specific information	1 per term per school per eligible member
JOBINFO	General information about each job listed	1 per employment period per eligible respondent

sampling variances using repeated Jackknife replications. All adjustments for BPS:90/92 data were applied, separately, to each of the 36 weights.

1. Weight Adjustment Cell Determination

A number of well known procedures exist for adjustment for nonresponse in surveys, all of which include ways for handling ineligibles. Most of these procedures, however, are applicable when the proportion of ineligibles is quite small relative to the proportion of nonrespondents. For BPS, the estimated proportion of ineligibles was greater than the proportion of nonrespondents. Moreover eligibility was known not only for respondents, but also for large numbers of nonrespondents[84]. Due to both the magnitude and importance of eligibility, weight adjustment activities adopted for this study focused more on eligibility adjustments than most of the better known procedures. Weight adjustments also accounted for the estimated number of FTBs in the suspected graduate student and suspected first professional group that were excluded from the fielded sample on the basis of results from the test samples drawn from those groups. Population-based adjustment post-

[84] Several sample members completed enough of the instrument to be identified as eligible but not enough to be classified as respondents; large numbers of non-FTBs also completed through the eligibility determination section of the interview; also, a number of non-FTBs were identified in the various tracing activities.

stratification adjustments were not applied, since no external population totals existed for FTBs that were believed to be more accurate than the BPS:90/92 estimates; however, trimming and smoothing operations were applied to the final weights.

Sample-based adjustment cell weighting was used to compensate for BPS nonresponse and ineligibility. The purpose of such adjustments is to reduce the potential for nonresponse bias in survey estimates. Although weight adjustments increase error variance, the overall goal is to reduce mean square error (error variance plus squared bias). It should be noted that such adjustment procedures do not completely eliminate bias unless the probability of responding is constant within cells or if survey responses are constant within cells (so-called ignorable nonresponse).[85] Thus, if the purpose of nonresponse adjustment is to minimize bias for a particular analysis variable[86], the goal is usually to form classes that maximize between-cell differences in that variable (similar to procedures used in imputation)[87]. When creating adjustment cells for omnibus unit nonresponse, one usually attempt to define cells that maximize differences in response rates because the goal is to simultaneously reduce nonresponse bias *for all potential analysis variables*. In either case, however, the adjustment cells are generally required to contain at least 25 to 50 sample members (to limit the associated variance inflation).

BPS nonresponse occurs, conceptually, at two stages: (1) determination of eligibility and (2) survey response among eligibles[88]. Weight adjustments for nonresponse were implemented in two corresponding stages. Because nonresponse occurred primarily at the stage of eligibility determination (well over 99 percent of the students -- weighted and unweighted -- who were determined to be eligible were also classified as respondents), that stage was the principal focus of the nonresponse adjustments. Weight adjustment classes were used to compensate for nonresponse regarding the determination of eligibility; the second adjustment (for nonresponse among students known to be eligible) was a single overall weight adjustment.

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85 Kalton, G. and Maligalig, D. S. A Comparison of Methods of Weighting Adjustment for Nonresponse. *Bureau of the Census 1991 Annual Research Conference*: U.S. Department of Commerce; Washington, DC: 1991.

86 Little, R. J. A. Survey Nonresponse Adjustments for Estimates of Means. *International Statistical Review*, 1986, **Vol. 54**, pp. 139-157.

87 For example, the goal when creating adjustment cells for imputation of household income would be to define cells so that all people with high incomes were in one cell (or group of cells) and all people with low incomes were in another cell.

88 Sample members were classified as eligible if they were: (1) eligible for NPSAS:90 (i.e., enrolled in a course for credit in a qualifying postsecondary institution during the 1989-90 academic year (AY) and not still taking high school courses), (2) first-time, beginning student during the 1989-90 AY, and (3) not deceased at the time of the BPS:90/92 follow-up survey. Eligible sample members were classified as respondents if they completed additional questions in Section A of the interview.

Eligibility status for the fielded sample is shown in Table V.3. As can be seen from the table, less than 0.2% of the students determined as eligible were nonrespondents[89]. Excepting deceased sample members and non-FTBs (all of whom were identified during tracing), the ineligibles were also determined through CATI interviews. Those who could not be definitively classified (none of whom were respondents) comprise the undetermined eligibility classification.

Table V.3 -- Distribution of Final Survey Eligibility and Status

Final Survey Eligibility and Status	Percent
Total (N = 10,624)	100.
Eligible	62.
Responded	61.
Refused	--
Ran out of time	--
All tracing leads exhausted [a]	--
Ineligible	24.
Non-FTB	24.
Deceased	--
Undetermined Eligibility	15.
Refused	3.
Ran out of time	2.
Unavailable during BPS:92	2.
No phone	--
Institutionalized	--
Language barrier	--
Modelled non-FTB [b]	2.
All tracing leads exhausted	5.

[a] Case was lost after initial contact and determination of eligibility in CATI.

[b] Since establishment of this group was not completely deterministic, initial eligibility adjustments treated them as having undetermined status; reevaluation of these cases is deferred until BPS:90/94, at which time more information will be available on the remaining set of nonrespondents.

-- Denotes less than .5%.

[89] These sample members completed the eligibility determination portion of the interview, but failed to complete enough of the remaining interview to be classified as respondents.

In the first stage of nonresponse compensation, the respondents were the 9,077 students whose eligibility status (eligible or ineligible) was known; nonrespondents were the 1,547 remainders. Since such a large portion of sample members with known eligibility status were ineligible (about 28 percent) and since there was no independent source for estimating the number of adjustment classes that minimized nonresponse bias for the estimated population size, nonresponse adjustment cells were constructed to maximize between-cell differences in eligibility among those with known eligibility status.

As discussed previously in Section III.C.3, one factor known to differentiate eligibility rates was the NPSAS:90 student stratum (as further partitioned on the basis of other NPSAS:90 variables). Specifically, the 10,624 members of the fielded sample could be classified as: (1) 8,739 likely FTBs, selected into the NPSAS:90 undergraduate stratum, (2) 677 probable FTBs, from the undergraduate student stratum, (3) 1,150 suspected upper level students, from the undergraduate student stratum, (4) 23 possible FTBs, selected into the NPSAS:90 first professional student stratum, and (5) 35 possible FTBs selected into the NPSAS:90 graduate student stratum. This variable (representing the BPS:90/92 FTB stratum), a collapsed version of the stratum variable (combining the last three categories listed above), and 15 other NPSAS:90 and BPS:90/92 data elements were examined to determine appropriate nonresponse adjustment cells. Variables used are identified in Table V.4.

Distribution of percent eligible were examined for the variables identified in Table V.4[90], separately and in various combinations. All distributions of eligibility status for the variables considered singly (and for a sampling of 2-way combinations) are provided separately in Appendix G, Table G.25. The collapsed version of the BPS stratum variable was found to be most strongly related to eligibility status. The age variable (younger, older, or typical age for others in the same educational level) was also strongly associated with eligibility status.[91] All weight adjustment cells were formed by taking the nine weight adjustment cells formed by crossing these two variables; additional subdivision, using other variables, was accomplished when the subdivided cells yielded eligibility rate differences of about five percent or more (subject to the requirement that each final weight adjustment cell contain approximately 30 or more students with known eligibility status). In addition, most weighting classes were defined to contain only institutions with a single level of control, since public, private, and proprietary institutions will often define separate analysis domains.

The final weight adjustment cells are shown in Table V.5. The effects of using weight adjustment cells with disparate eligibility rates can be illustrated by considering cells 2 and 47, shown in the table, for which weighted percent eligible is 92.0 percent and 1.8 percent,

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[90] Given the large amount of NPSAS:90 data for BPS:90/92 nonrespondents, consideration was given to fitting a logistic model for eligibility among students with known eligibility status. Predicted probability of eligibility would then have been computed for each member of the fielded sample and used to form weight adjustment cells. This approach was not adopted because the sample-based weighting class approach (1) yielded satisfactory discrimination and (2) was less expensive.

[91] Missing data for the "typical age" variable were imputed as the modal value within the associated stratum so that nonresponse adjustment cells involving this variable could be defined for all 10,624 sample members.

Table V.4 -- Variables Examined in Developing Weight Adjustment Classes

Variable Name	Variable Definition [a]
STRATUM	NPSAS:90 student stratum into which sample member was selected, modified by pre-CATI assessment of FTB likelihood (5 categories)
BPSSTRA2	STRATUM collapsed into three categories: likely FTBs, probable FTBs, all others
OFCON2	NPSAS:90 derived variable describing crossed type and control of institution from which student was sampled
ENROLL1	BPS:90/92 "current" enrollment status for students sampled from 4-year institutions (3 categories)
ANYAID	NPSAS:90 data: receipt of any financial aid
DEPEND	NPSAS:90 data: dependency status in 1989
CONTROL	PSE sector (public, independent, proprietary) of NPSAS:90 school
LEVEL	Highest level of offering of NPSAS:90 school
GENDER	NPSAS:90 reported gender
RACE	NPSAS:90 reported race -- combined with hispanic ethnicity
OFERDFA1	NPSAS:90 data: whether financial aid was considered important
PROGTYP	NPSAS:90 reported degree/award program in which enrolled
GPACAT	NPSAS:90 reported GPA category
ATTNSTAT	NPSAS:90 reported full-time/part-time attendance status combined with number of schools attended
EXEDCOL	NPSAS:90 reported highest level of postsecondary education expected to complete
INCOME	NPSAS:90 derived variable: combined dependency and income level (16 categories)
TYPAGE	NPSAS:90 derived variable: age relative to others at same educational level (younger, older, or typical age)

[a] Missing values formed additional categorizations for some variables.

respectively. The nonrespondents in Cell 2 have their weight reallocated to the respondents in Cell 2. Since 92 percent of the respondents in Cell 2 are eligible, about 92 percent of the weight associated with the nonrespondents in that cell contributes to the estimated BPS:90/92 population size. Similarly, the nonrespondents in Cell 47 have their weight reallocated to the respondents in that same cell. In this case, however, only about 1.8 percent of the respondents are eligible for BPS:90/92, and, hence, only about 1.8 percent of the weight associated with the nonrespondents in Cell 47 contributes to the estimated BPS:90/92 population size.

Table V.5 -- Definition of, and Eligibility Rates within, Final Weight Adjustment Cells

Number and Definition of Weight Adjustment Cell	Total Sample Members	Number with Known Status	Percent Eligible	
			Unweighted	Weighted
Total	10,624	9,077	72.1	69.0
1. Likely FTB; 4-yr; young	89	77	88.3	81.3
2. Likely FTB; < 4-yr; public; young or typical age; dep	563	489	92.4	92.0
3. Likely FTB; < 4-yr; public; young or typical age; indep	49	41	87.8	85.0
4. Likely FTB; < 4-yr; independent; young or typical age	325	282	94.0	89.8
5. Likely FTB; < 4-yr; proprietary; young or typical age; dep	489	394	91.9	90.4
6. Likely FTB; < 4-yr; proprietary; young or typical age; indep	106	79	87.3	83.8
7. Likely FTB; 4-yr; public; typical age; dep	1,626	1,468	96.6	96.5
8. Likely FTB; 4-yr; public; typical age; indep	51	49	89.8	88.5
9. Likely FTB; 4-yr; independent; typical age; dep	2,164	1,903	98.2	98.3
10. Likely FTB; 4-yr; independent; typical age; indep	65	57	79.0	73.4
11. Likely FTB; 4-yr; proprietary; typical age	42	36	91.7	82.3
12. Likely FTB; public; older; dep	196	159	57.9	57.2
13. Likely FTB; 4-yr non-PhD; public; older; indep; enrolled	35	33	48.5	47.2
14. Likely FTB; 4-yr PhD; public; older; indep; enrolled	34	31	64.5	63.3
15. Likely FTB; 4-yr; public; older; indep; not enrolled	142	123	48.8	48.0
16. Likely FTB; < 4-yr; public; older; indep	765	654	52.6	48.9
17. Likely FTB; < 2-yr; independent; older	106	85	51.8	44.9
18. Likely FTB; 2-3 yr; independent; older	100	86	54.7	59.7
19. Likely FTB; < 2-yr; proprietary; older	1,027	789	52.9	54.1
20. Likely FTB; 2-3 yr; proprietary; older	338	265	60.4	57.7
21. Likely FTB; 4-yr non-PhD; independent; older; dep	50	46	65.2	66.2
22. Likely FTB; 4-yr non-PhD; independent; older; indep; enrolled	56	46	52.2	51.2
23. Likely FTB; 4-yr non-PhD; independent; older; indep; not enrolled	122	106	45.3	44.3
24. Likely FTB; 4-yr PhD; independent; older; dep	45	35	51.4	46.3
25. Likely FTB; 4-yr PhD; independent; older; indep	93	74	29.7	30.0

Table V.5 -- Definition of, and Eligibility within, Final Weight Adjustment Cells (Continued)

Number and Definition of Weight Adjustment Cell	Total Sample Members	Number with Known Status	Percent Eligible	
			Unweighted	Weighted
26. Probable FTB; 4-yr; proprietary; older	61	55	52.7	47.4
27. Probable FTB; 4-yr; public; young	43	38	89.5	87.3
28. Probable FTB; 4-yr; independent; young	51	44	100.0	100.0
29. Probable FTB; proprietary; young/typical age	40	32	78.1	79.5
30. Probable FTB; < 4-yr; public; young/typical age	98	89	87.6	82.8
31. Probable FTB; < 4-yr; independent; young/typical age	28	24	87.5	90.3
32. Probable FTB; 4-yr non-PhD; public; typical age	57	49	77.6	75.2
33. Probable FTB; 4-yr non-PhD; independent; typical age	72	64	71.9	74.4
34. Probable FTB; 4-yr PhD; public; typical age	54	47	63.8	65.2
35. Probable FTB; 4-yr PhD; independent; typical age	56	50	74.0	72.7
36. Probable FTB; public; older	67	52	38.5	39.3
37. Probable FTB; independent; older	53	46	28.3	24.9
38. Probable FTB; proprietary; older	58	44	45.5	48.6
39. Possible FTB; public; young/typical age	266	228	8.8	8.6
40. Possible FTB; independent; young/typical age	279	247	8.9	8.6
41. Possible FTB; < 4-yr; public; older	86	70	18.6	13.9
42. Possible FTB; < 4-yr; independent; older	32	27	18.5	36.6
43. Possible FTB; 4-yr non-PhD; public; older	120	107	7.5	7.8
44. Possible FTB; 4-yr PhD; public; older	95	85	1.2	1.2
45. Possible FTB; 4-yr; independent; older; enrolled	76	61	13.1	11.0
46. Possible FTB; 4-yr non-PhD; independent; older; not enrolled	115	97	6.2	6.6
47. Possible FTB; 4-yr PhD; independent; older; not enrolled	49	42	2.4	1.8
48. Possible FTB; proprietary	90	72	30.6	29.2

2. Nonresponse and Eligibility Adjustment Procedures

Adjustments were implemented (first for eligibility and then for nonresponse within the set of eligibles) independently, using each of the 36 NPSAS:90 analytic weights as the initial sampling weight[92]. In the description to follow, only one such adjustment is considered, using the arbitrary notation of $W_1(i)$ to define a specific NPSAS:90 analytic weight. Eligibility adjustment was carried out within each of the weight adjustment cells shown above in Table V.5; and in computing the adjustment two indicator variables were defined, as follows:

$$I_K(i) = \begin{cases} 1, \textit{ if the eligibility status of the } i\textit{-th BPS sample member is known;} \\ 0, \textit{ otherwise;} \end{cases}$$

$$I_E(i) = \begin{cases} 1, \textit{ if the } i\textit{-th BPS sample member is known to be eligible;} \\ 0, \textit{ otherwise.} \end{cases}$$

It can be seen that the indicator $I_K(i)$ is equivalent to the Boolean variable for known eligibility status, and $I_K(i)$ the Boolean variable for known to be eligible.

Letting s (which takes on values from 1 to 48) index the separate weight adjustment cells, the eligibility weight adjustment factor for the s-th cell, $A_1(s)$, is obtained as:

$$A_1(s) = \frac{\Sigma_s \, W_1(i)}{\Sigma_s \, (W_1(i) \; I_K(i))} \quad ,$$

where Σ_s denotes summation over all sample members belonging to weight adjustment cell "s" and other terms have been previously defined. The numerator estimates the NPSAS:90 universe size for the cell, and the denominator estimates the (typically smaller) number in the cell for whom eligibility status could be determined using the BPS:90/92 survey methods. Consequently, the adjustment factor $A_1(s)$ is the inflation factor needed to apportion the weight of all members of the cell to those members in the cell for which eligibility is known.

The sampling weight adjusted for nonresponse to eligibility determination for the i-th BPS sample member belonging to weight adjustment cell s is then given by applying the adjustment factor and the known eligibility

$$W_2(i) = W_1(i) \; A_1(s) \; I_E(i) \quad .$$

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[92] The variability introduced by the weight adjustment process is, therefore, reflected in the 35 sets of replicate weights and, therefore, would be included in replication-method variance estimates based upon them.

This adjustment simultaneously sets to zero, within each cell, the weights for sample members with unknown eligibility status and sample members known to be ineligible; weights for known eligibles within the cell are adjusted upward to compensate for those in the cell with unknown eligibility. The sum of the adjusted weights, $W_2(i)$, within a given cell is, therefore, a population estimate of eligible students in the cell (i.e., the estimated total number of NPSAS:90 FTBs within the cell).

For the adjustment for nonresponse among known eligibles, an additional indicator variable was defined as:

$$I_R(i) = \begin{cases} 1, \textit{ if the i-th BPS sample member is an eligible respondent;} \\ 0, \textit{ otherwise.} \end{cases}$$

Since nearly all (99.7 percent) of the sample members who were determined to be eligible for BPS were also respondents, the adjustment for nonresponse among eligible sample members was a single overall weight adjustment. The weight adjustment factor, A_2 was computed as:

$$A_2 = \frac{\Sigma_+ W_2(i)}{\Sigma_+ (W_2(i)\ I_R(i))} ,$$

where Σ_+ denotes summation over all members of the fielded sample. The sampling weight for the i-th BPS sample member is then given by

$$W_3(i) = W_2(i)\ A_2\ I_R(i)$$

All nonrespondents are given a weight of zero, and respondent weights are inflated to account for the nonresponse. The overall sum of adjusted weights $W_3(i)$, which are non-zero only for eligible respondents, is therefore identical to the sum of the adjusted weights, $W_2(i)$; namely, the estimated number of FTBs from the five fielded BPS strata of the NPSAS:90 sample.

3. Adjustment for Eligibles in the Excluded Groups

An eligibility rate was obtained (from the test samples) for sample members in the 1,076 cases sampled into the NPSAS:90 graduate student or first professional student strata, *who were not included in the fielded sample of 10,624*. Eligibility was determined for 97 of the test sample of 100; 2 of these students were identified as eligible. An overall adjustment was used to correct for the approximately 2 percent of the excluded cases who were actually eligible[93]. No attempt was made to collect data from those in these strata who

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[93] This approach considered preferable to including the survey data for these two identified eligibles in the BPS:90/92 data base, since adjusted weights for these two students would have been at least an order of magnitude larger than for other sample members.

were not in the test sample (considered cost-ineffective, given the sparse eligibility rate). however, it is clear that all members of these strata were ineligible. Test sample results were therefore used to estimate the number of eligible students in the excluded strata.

For each member of the test sample, the sampling weight is the product of the final NPSAS:90 analysis weight and the reciprocal of the probability selection into the test sample. Thus, the test sample weight component for the j-th member of the test sample is

$$WQ_1(j) = \begin{cases} 766/50, \textit{ if the j-th student was a suspected graduate student;} \\ 310/50, \textit{ if the j-th student was a suspected first professional;} \end{cases}$$

the initial sampling weight for the j-th student in the test sample, $WQ^2(j)$, was then given by

$$WQ_2(j) = W_1(j)\ WQ_1(j) \quad ,$$

where $W_1(j)$ is the final NPSAS:90 analysis weight, as before.

Hence, the proportion of eligibles in the excluded strata, $\hat{P}_E$, is estimated by

$$\hat{P}_E = \frac{\Sigma_t \left(WQ_2(j)\ I_E(j)\right)}{\Sigma_t \left(WQ_2(j)\ I_K(j)\right)} \quad ,$$

where Σ_t represents summation over the 100 members of the test sample and the indicator variables, I_E and I_K, are Boolean variables for FTB eligibility and determinate eligibility status, respectively, comparable to those defined previously. The number of FTBs in the 1989-90 school year, $\hat{N}_2$, represented by the 1,076 members of the excluded strata was then estimated by

$$\hat{N}_2 = \hat{P}_E\ \Sigma_X\ W_1(j) \quad ,$$

where Σ_X represents summation over all 1,076 members of the excluded strata. Likewise, the number of BPS eligibles represented by the fielded BPS sample was estimated by

$$\hat{N}_1 = \Sigma_+ W_3(i) \quad ,$$

where Σ_+ represents summation over the entire fielded BPS sample of 10,624 students, where the proportion eligible was unity by definition of the subset for whom $W^3(i)$ was non-zero. Therefore, the estimated total number of eligibles represented in the potential sample of 11,700, who were still living at the time of the BPS:90/92 survey, was estimated by

$$\hat{N} = \hat{N}_1 + \hat{N}_2 \quad .$$

Consequently, the ratio adjustment factor used to adjust the BPS:90/92 weights to sum to this estimated population total was

$$A_3 = \hat{N} / \hat{N}_1 \quad ,$$

and the BPS analysis weight for the i-th member of the fielded BPS sample is given by

$$W_4(i) = W_3(i)\, A_3 \quad .$$

The estimated number of FTBs in the BPS:90/92 universe is estimated by $\hat{N}$ and by the sum of the analysis weights, $W_4(i)$.

4. Truncation and Smoothing

The multiplicative adjustment factors used in adjustment cell weighting methods can result in very large sampling weights for a few sample members, relative to the rest. In that case, truncating the largest weights and readjusting (smoothing) the weights to sum to the original total can reduce mean square error by reducing the sampling error variance component[94]. One measure of the variance inflation resulting from unequal weighting is the unequal weighting design effect,

$$d_w = \frac{n_r \Sigma_+ w^2}{(\Sigma_+ w)^2} \quad ,$$

where n_r is the number of sample members with a non-zero analysis weight, w, and the summation is over all sample members. The unequal weighting design effect, d_w, is 2.41 for the BPS:90/92 fielded sample, based on the final NPSAS:90 analysis weight, $W_1(i)$; it is 2.38 for the BPS:90/92 respondents based on the BPS analysis weight, $W_4(i)$. Because of the wide range of analysis weights, it was decided to apply procrustian procedured to truncate the range. Since the sum of the truncated weights ($W_5(i)$) differs from the sum of the $W_4(i)$ weights, the truncated weights were adjusted, by smoothing, to sum to the estimated population totals. The weight adjustment factors for the smoothing process were defined for each weighting class, s, as follows:

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[94] There is an associated increase in bias, by departing from weights based on probabilities of selection and probabilities of responding; however, the overall mean square error is still reduced if the reduction in error variance is sufficiently large to offset the square of increased bias.

$$A_4(s) = \frac{\Sigma_s W_4(i)}{\Sigma_s W_5(i)} .$$

The truncated and smoothed analysis weights are then defined for the i-th BPS sample member belonging to weight adjustment cell s by

$$W_6(i) = W_5(i)\, A_4(s) .$$

For each weighting class, s, both the truncated and smoothed (final) analysis weights, $W_6(i)$, and the $W_4(i)$ weights sum to the same estimated number of FTBs in the BPS:90/92 universe, 2,569,348 students.

Appendix A

Student, Parent, and Other Prenotification and Tracing Materials

Introductory Letter from U.S. Department of Education Official (Parent)[1]
BPS Study Leaflet (enclosed with all letters)
Parent Tracing Letter (for female sample members)[2]
Directory Update Information - Parent
Friend/Relative Tracing Letter (for female sample members)[2]
Directory Update Information - Friend/Relative
Student Prenotification/Tracing Letter
Directory Update Information - Student

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[1] An almost identical letter, differing only in salutation, was used for relative/friend.

[2] An almost identical letter, differing only in gender references, was used for male sample members.

INTRODUCTORY LETTER FROM
U.S. DEPARTMENT OF EDUCATION OFFICIAL - PARENT

Dear Parent:

The National Center for Education Statistics (NCES) has a mandate from the Congress to provide policymakers with information about the quality of education in the United States. This includes information about student access to and persistence in postsecondary education. It also includes information about students' experiences as they enter the workforce. NCES has authorized Research Triangle Institute and Abt Associates Inc. to conduct the *Beginning Postsecondary Students (BPS)* Longitudinal Study and to look at these issues.

BPS is authorized by law [20 U.S.C. 1221e-1 and PL 100-297, Sections 300(i) and 300(k)]. However, the success of the study depends upon your cooperation. Only a small sample of students was selected for participation in *BPS*. Therefore, each student represents thousands of similar students who entered college in 1989-90. Each student has provided information to us in the past, and we greatly appreciate this. Now we need to ask a few more questions which only those students, as past respondents, can answer. The answers to these questions will help to assure that the Federal government is spending its money in ways that best help students obtain a postsecondary education.

Let me assure you that NCES and its contractors adhere to the highest standards in protecting the privacy of individuals involved in the studies it undertakes. Stringent measures will be used to safeguard the confidentiality of participants during the collection, analysis, and reporting of all survey data.

We sincerely appreciate your cooperation in the past, and we thank you in advance for your continued cooperation in helping us conduct this important study. If you have any questions about the study, please contact Terry Blake, toll free, at 1-800-452-6655.

Sincerely,

Emerson J. Elliott
Acting Commissioner

BEGINNING POSTSECONDARY STUDENTS LONGITUDINAL STUDY

The National Center for Education Statistics (NCES) of the Office of Educational Research and Improvement (OERI), has responded both to Congressional mandates and to the pressing challenges of education in the United States with the Postsecondary Longitudinal Studies (PLS) program. High School Cohort Studies involve single age cohorts beginning while they are in secondary education. Postsecondary Cohort Studies include everyone enrolled in postsecondary education at a particular point in time regardless of age. The groundwork for this portion of the PLS was laid with the National Postsecondary Student Aid Study (NPSAS) which covers everyone in postsecondary education at a single point in time and is not a single age cohort.

Expanded Representation

The *Beginning Postsecondary Students (BPS)* Longitudinal Study which is currently in progress is the longitudinal component that identifies students when they first entered their postsecondary education. ***BPS*** will follow their progress at two-year intervals through postsecondary education and into the work force. This ***BPS*** is based on NPSAS:90. Baccalaureate and Beyond (B&B), in the planning stage, will be a similar longitudinal component involving bachelor's degree recipients based on NPSAS:93.

The ***BPS*** Longitudinal Study represents a bold departure from previous longitudinal studies, in that it starts with a cohort of individuals beginning their postsecondary studies, regardless of when they completed high school. ***BPS*** will provide information about "nontraditional" postsecondary students, those who have delayed the continuation of their education due to military service, family responsibilities, or other reasons, as well as about more "traditional" students. This is quite important, since the "nontraditional" student represents a steadily growing segment of the postsecondary student population. All forms of postsecondary education (academic, vocational/occupational, and technical) will be considered in the study.

Addresses Policy Questions

Major educational policy questions to be addressed by information collected during ***BPS*** are:

- How is postsecondary education financed?
- What courses are taken and what grades and credits are earned?
- What fields of study are pursued and when do students make their final choice?
- How extensive and what are the patterns of transfers between colleges?
- What is the extent and timing of program completion?
- What is the rate of progress toward and attainment of degrees, licenses, or certificates?
- What is the nature and timing of application for and continuation into graduate or professional school?
- What relationships are there between postsecondary education experience and subsequent life experiences (jobs, family formation, lifestyles)?
- How do the characteristics of a postsecondary education differ for different types of college students?

Participants and Schedule

BPS followup studies will be conducted at two-year intervals. The current ***BPS*** Longitudinal Study will include those first-time entering postsecondary students in the 1989/90 school year who were initially surveyed during the National Postsecondary Student Aid Study (NPSAS:90).

The ***BPS*** first followup field test, involving about 1,900 students entering 67 postsecondary institutions in the 1988/89 school year, was conducted during the winter and spring of 1991.

The first followup ***BPS*** will be conducted during the fall of 1991 through the spring of 1992. It will involve about 11,700 postsecondary students in about 1,200 postsecondary institutions who were enrolled for the first time during 1989/90.

The ***BPS*** first followup will involve extensive efforts to trace students to their current location and to conduct a computer-assisted telephone interview (CATI) to determine their educational and related experiences during the two year interval since they were last surveyed.

Endorsing Organizations

The American Association of State Colleges and Universities
The American Association of Collegiate Registrars and Admissions Officers
The American Association of Community and Junior Colleges
The American Council on Education
The Career College Association (formerly the Association of Independent Colleges and Schools and the National Association of Trade and Technical Schools)
The College Board
The National Association of Accredited Cosmetology Schools
The National Association of College and University Business Officers
The National Association of Student Financial Aid Administrators
The National Institute of Independent Colleges and Universities

A WORD ABOUT CONFIDENTIALITY

The ***Beginning Postsecondary Students*** Longitudinal Study is being conducted for the National Center for Education Statistics (NCES) of the U. S. Department of Education, Washington, DC, as authorized by law [20 USC 1221e-1] and the Higher Education Amendments of 1986, as amended by the Hawkins-Stafford Amendments of 1988 [PL 100-297, Sections 300(i) and 300(k)]. The study is being conducted by the Research Triangle Institute (RTI), a not-for-profit research organization in North Carolina. RTI is being assisted in the study by the Chicago office of Abt Associates Inc. (AAI), and by MPR Associates, located in Berkeley, California.

Strict confidentiality of all information obtained from the ***BPS*** study as well as from the earlier National Postsecondary Student Aid Study (NPSAS) is assured by current federal laws and regulations. These include the Privacy Act of 1974 [5 USC 552a], the Family Education Rights and Privacy Act [20 USC 1232g], the General Education Provisions Act, as amended by the Hawkins-Stafford Amendments of 1988 [PL 100-297], Privacy Act Regulations [34 CFR Part 56], and NCES Standards and Policies. These data will be combined to produce reports for Congress and others. Only a limited number of researchers may be authorized by NCES to access information that may identify individuals, but researchers are subject to fines and imprisonment for misuse or disclosure of individual data. Under these laws and regulations no person may use this information for other than statistical purposes.

Extraordinary procedures have been implemented to ensure confidentiality and privacy of study in Specifically:

- All project staff with any access to study data have taken an oath of nondisclosure which subjects them to possible fines and imprisonment for any disclosure of individual responses.
- All electronic data are maintained in secure and protected data files, and all personally identifying information is maintained in files separate from files containing descriptive information.
- Any data released to the general public (for example, statistical tables) will be tailored so that it is not possible to identify specific individuals or institutions.

These procedures have been reviewed and approved by the federal government and by the RTI Committee for the Protection of Human Subjects.

For Further Information

If you have any questions or concerns about the confidentiality of any information that you provide for this study, or about any other aspects of this study, please do not hesitate to call (collect) any of the study principals listed below.

RTI Project Director:
Dr. Graham Burkheimer, (919) 541-6312

AAI Deputy Director:
Ms. Shirley Knight, (312) 621-3847

MPR Deputy Director:
Dr. Charles Byce, (415) 849-4942

If you have additional questions, you can also call the NCES Technical Monitor, Dr. Paula Knepper, at (202) 219-1914.

A-4

BPS

Beginning Postsecondary Students Longitudinal Study

National Center for Education Statistics
U.S. Department of Education
September, 1991

PARENT TRACING LETTER (FEMALE VERSION)

October 1991

Dear Parent of BPS Student:

In 1990, your daughter (whose name appears on the attached sheet) participated in the National Postsecondary Student Aid Study (NPSAS) which is sponsored by the National Center for Education Statistics (NCES) of the U.S. Department of Education. At that time, your daughter provided your name and address as one of the people most likely to know where she could be contacted for a followup survey. Research Triangle Institute and Abt Associates Inc. are currently preparing for the first followup of the 1990 NPSAS, the *Beginning Postsecondary Students (BPS)* Longitudinal Study. We are seeking your help now.

Your daughter has already made a valuable contribution to the NCES Postsecondary Longitudinal Studies Program, and we would like to offer each past participant the opportunity to do so again. Thousands of students have taken part in the program and continue to do so. The data are a valuable resource for educators and policymakers as they address the challenges and debate about the quality of education, the effect of that education on the lives of Americans, and the most effective way to support student participation in postsecondary education and financial aid.

To prepare for this *BPS* survey, we are updating our telephone number and address files. A page is enclosed which contains our current record of the information which your daughter gave to us. Please take a moment to verify, correct, or update the information. Then please return it in the postage paid envelope.

We have enclosed a leaflet with a brief description of the Postsecondary Longitudinal Studies Program in general, and *BPS* in particular, in which your daughter is a participant. It also explains the legal safeguards that will be taken to protect the confidentiality of the information that the students provide.

If you have questions about the study, please do not hesitate to call Terry Blake at the following toll free number, 1-800-452-6655. We thank you for your assistance and the opportunity it gives the participant to continue to take part in this important program.

Sincerely,

Shirley Knight
Beginning Postsecondary Students Study
Deputy Project Director, AAI

DIRECTORY UPDATE INFORMATION - PARENT

BEGINNING POSTSECONDARY STUDENTS LONGITUDINAL SURVEY
Parent

Student Number **BPS 8579**

Student Address Information

A. *This is the updated address **your son or daughter** provided as his or her **local or school address** in 1990. If not currently correct, **please update** in the space provided.*

Student Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: (___) _____ Work: (___) _____

☐ Please check here if all information pre-printed in this section is currently correct.

☐ Check here if you do not know if this information is currently correct.

B. *This is the updated address **your son or daughter** provided as his or her **permanent address** in 1990. If not currently correct, **please update** in the space provided.*

Student Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: (___) _____ Work: (___) _____

☐ Please check here if all information pre-printed in this section is currently correct.

☐ Check here if you do not know if this information is currently correct.

C. *This is what we were given as **your** address. If not currently correct, **please update** in the space provided.*

Parent Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: (___) _____ Work: (___) _____

☐ Please check here if all information pre-printed in this section is currently correct.

Thank you for your cooperation and participation. This information is strictly confidential.
Please return this page in the enclosed postage paid envelope.

FRIEND/RELATIVE TRACING LETTER (FEMALE VERSION)

October 1991

Dear Relative or Friend of BPS Student:

In 1990, your relative or friend (whose name appears on the attached sheet) participated in the National Postsecondary Student Aid Study (NPSAS) which is sponsored by the National Center for Education Statistics (NCES) of the U.S. Department of Education. At that time, she provided your name and address as one of the people most likely to know where she could be contacted for a followup survey. Research Triangle Institute and Abt Associates Inc. are currently preparing for the first followup of the 1990 NPSAS, the *Beginning Postsecondary Students (BPS)* Longitudinal Study. We are seeking your help now.

Your relative or friend has already made a valuable contribution to the NCES Postsecondary Longitudinal Studies Program, and we would like to offer each past participant the opportunity to do so again. Thousands of students have taken part in the program and continue to do so. The data are a valuable resource for educators and policymakers as they address the challenges and debate about the quality of education, the effect of that education on the lives of Americans, and the most effective way to support student participation in postsecondary education and financial aid.

To prepare for this *BPS* survey, we are updating our telephone number and address files. A page is enclosed which contains our current record of the information which your relative or friend gave to us. Please take a moment to verify, correct, or update the information. Then please return it in the postage paid envelope.

We have enclosed a leaflet with a brief description of the Postsecondary Longitudinal Studies Program in general, and *BPS* in particular, in which your relative or friend is a participant. It also explains the legal safeguards that will be taken to protect the confidentiality of the information that the students provide.

If you have questions about the study, please do not hesitate to call Terry Blake at the following toll free number, 1-800-452-6655. We thank you for your assistance and the opportunity it gives the participant to continue to take part in this important program.

Sincerely,

Shirley Knight
Beginning Postsecondary Students Study
Deputy Project Director, AAI

DIRECTORY UPDATE INFORMATION - FRIEND/RELATIVE
BEGINNING POSTSECONDARY STUDENTS LONGITUDINAL SURVEY
Friend or Relative

Student Number **BPS 8579**

Student Address Information

A. *This is the updated address **the student** provided as his or her **local or school address** in 1990. If not currently correct, **please update** in the space provided.*

Student Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: ( )_____ Work: ( )_____

☐ Please check here if all information pre-printed in this section is currently correct.

☐ Check here if you do not know if this information is currently correct.

B. *This is the updated address **the student** provided as his or her **permanent address** in 1990. If not currently correct, **please update** in the space provided.*

Student Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: ( )_____ Work: ( )_____

☐ Please check here if all information pre-printed in this section is currently correct.

☐ Check here if you do not know if this information is currently correct.

C. *This is what we were given as **your** address. If not currently correct, **please update** in the space provided.*

Friend/Relative Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: ( )_____ Work: ( )_____

☐ Please check here if all information pre-printed in this section is currently correct.

Thank you for your cooperation and participation. This information is strictly confidential.
Please return this page in the enclosed postage paid envelope.

STUDENT PRENOTIFICATION/TRACING LETTER

January 1992

Dear Student:

Research Triangle Institute (RTI) and Abt Associates Inc. (AAI) are preparing for the *Beginning Postsecondary Students (BPS)* Longitudinal Study sponsored by the National Center for Education Statistics (NCES) of the U.S. Department of Education. *BPS* is the first followup of the National Postsecondary Student Aid Study (NPSAS) in which you became a participant in 1990.

In the 1990 survey you gave us information that would make it possible for us to contact you this year so that you may continue to take part in this important study. To prepare for this *BPS* survey we are gathering current telephone and address data. Please take a moment to verify, correct or update the enclosed address and telephone information and return it in the postage paid envelope.

Your participation in NPSAS has made a valuable contribution to the NCES Postsecondary Longitudinal Studies Program of which NPSAS and its followup, *BPS*, are components. Thousands of students have taken part in the program and continue to do so. The data that they, and you, have provided are a valuable resource for educators and policymakers as they address the challenges and debate about the quality of education, the effect of that education on the lives of Americans, and the most productive way to support participation in postsecondary education and financial aid.

An interviewer from RTI will call to conduct an interview with you by telephone sometime in the period between February and May. During the interview you will be asked questions about such things as your education, the school(s) you attended or are attending, your employment during your school attendance and after, how you financed your education, and your goals and aspirations.

NCES is mandated by Federal law [20 U.S.C. 1221e-1] to conduct the Beginning Postsecondary Students Longitudinal Study. BPS collects data about the education and employment experiences of people who have continued their schooling after high school. Only a limited number of researchers may be authorized by NCES to access information that may identify individuals. They may use the data only for statistical purposes and are subject to fine and imprisonment for misuse. Data will be combined to produce statistical reports for congress and others. No individual data will be reported. Your participation in BPS is strictly voluntary. However, we do need your help in collecting these data, as you were selected to represent thousands of others like yourself. Your responses *are necessary* to make the results of this study accurate and timely.

The interview is estimated to vary from 30 to 45 minutes, with an average of about 35 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this public reporting burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the U.S. Department of Education, Information Management and Compliance Division, Washington, D.C. 20202-4651; and to the Office of Management and Budget, Paperwork Reduction Project 1850-0631, Washington, D.C. 20202.

Enclosed you will find a leaflet with a brief description of the *BPS* study as well as greater detail about the confidentiality regulations under which the data are sought. If you would like more information about the survey, please call Terry Blake at the following toll free number, 1-800-452-6655. We thank you for your past participation and look forward to your continuing help in this important study.

Sincerely,

Shirley Knight
Beginning Postsecondary Students Study
Deputy Project Director, AAI

DIRECTORY UPDATE INFORMATION - STUDENT

BEGINNING POSTSECONDARY STUDENT LONGITUDINAL SURVEY

Student Number **BPS 8579**

Student Address Information

*A. This is the address we have as your **local or school address** in 1990. If not currently correct, **please update** in the space provided.*

LABEL:
Student Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: ( ) _____ Work: ( ) _____

☐ Please check here if all information pre-printed in this section is currently correct.

---

*B. This is what we have as your **permanent address**. If not currently correct, **please update** in the space provided.*

LABEL:
Student Name
Address
City, ST, Zip
Telephone Number

Name:_____

Address:_____

_____

Home phone: ( ) _____ Work: ( ) _____

☐ Please check here if all information pre-printed in this section is currently correct.

Thank you for your cooperation and participation. This information is strictly confidential. Please return this page in the enclosed postage paid envelope.

Appendix B

Institutional Forms and Associated Correspondence

Institutional Coordinator Letter
Administrative Information Sheet (for all students)

NOTE: The BPS study leaflet used with Institutional mailings is identical to the one provided in Appendix A.

INSTITUTIONAL COORDINATOR LETTER

Coordinator Name
School Name
Address 1
Address 2
City State Zip

Dear (Coordinator Name):

Abt Associates Inc. (AAI) requests your assistance in conducting the national *Beginning Postsecondary Students (BPS)* Longitudinal Study sponsored by the National Center for Education Statistics (NCES) of the U.S. Department of Education. The *Beginning Postsecondary Students* Longitudinal Study is part of the NCES Postsecondary Longitudinal Studies Program and is the first followup of the 1990 National Postsecondary Student Aid Study (NPSAS). The purpose of *BPS* is to provide data that will inform education and financial aid policy concerning undergraduate access to postsecondary education, student persistence, progress, and attainment as they move through school, as well as the personal and societal benefits that result from continuing study. *BPS* is endorsed by 11 higher education associations (list enclosed) who encourage your assistance in this important study. During this effort we look forward to talking with approximately 12,000 NPSAS respondents from about 1,100 schools during the *BPS* survey. With your help all of these participants will be given an opportunity to continue to be part of this important study.

At the time of the 1990 NPSAS you were appointed to assist the study in obtaining enrollment, locator, and financial aid data for the students who were selected for the survey sample. We would like to thank you for your assistance at that time and we hope that you will continue in that position for the 1992 *BPS*. We now seek your help in updating the enrollment status of those students who attended your school and participated in that survey. (At a later time we may request additional information that will help us to locate those students.)

Enclosed you will find the following items:

- An Administrative Information Sheet which lists the students for whom information is requested with a box to check for each individual's current enrollment status. This information will assist us in locating students and will also provide important data to be used in validation and non-response analysis.

- A leaflet that describes the study, lists the postsecondary organizations that endorse the study, and clearly states our commitment to maintaining confidentiality for your school and for the participants.

- A postage paid return envelope for the return of the Administrative Information Sheets.

Privacy and confidentiality are always of concern to institutions and offices that maintain student records. NCES and the organizations under contract to it adhere to the highest standards in protecting the privacy of individuals involved in the research it undertakes. Appropriate measures are employed to ensure the confidentiality of research participants during the collection, analysis, and reporting of all survey data. Of course, all relevant safeguards will be applied to this study.

The collection of information is being sought under the provision of the Family Education Rights and Privacy Act (FERPA) (20 U.S.C. 1232g) 34 CFR 99.31 (a) (3) (ii), (6), and directory information is being collected under provisions of FERPA (20 U.S.C. 1232g) 34 CFR 99.33 (2) (c) and 99.37 (a) (3)(b) that allows the release of directory information to the Secretary of Education or his agent without prior written consent by survey subjects. Both the purpose for and the manner in which the information is acquired are in keeping with the FERPA requirements.

The *Beginning Postsecondary Students* Longitudinal Study is authorized by the General Education Provisions Act, as amended [20 U.S.C. 1221e-1], and The Higher Education Amendments of 1986, as amended by the Hawkins-Stafford Amendments of 1988 [PL 100-297, Sections 300(i) and 300 (k)].

We hope that we will be able to continue to work you, since you assisted us previously. If, however, that is not possible, we would appreciate it if your school would appoint another member of its staff and enter his or her name at the top of the Administrative Information Sheet.

Please return the Administrative Information Sheet by (date filled) so that all of the participants will be given the opportunity to continue as part of this major study. If you have any questions about the study, please do not hesitate to call me at (312) 621-3847 (collect).

Sincerely,

Shirley

Knight

Beginning Postsecondary Students Study

Deputy

Project Director, AAI

BEGINNING POSTSECONDARY STUDENTS LONGITUDINAL STUDY
Administrative Information Sheet

Form Approved
O.M.B. No. 1850-0653
Exp. 12/93

NPSAS Coordinator Name: (Filled in)

Replacement Coordinator (if applicable): _____

A list of the students from your school who are to be included in this survey is provided below. Please indicate each student's **current** enrollment status at your school by checking one of three box selections available for each student: place a check in column **A** for those students **currently enrolled** at your institution; in column **B** for those students who have **completed** a school program and have received a degree, diploma, certificate or license; and, in column **C** for those students **not** enrolled at this time and having not completed a school program. Please enter the date in column **D** for all students with checks in columns **B** or **C**.

Student ID	Student Name	Social Security Number	(✓) Check Applicable Box Below: A, B or C			D If Completed Program, or if Not Currently Enrolled, Please Indicate Date Completed or Last Date of Enrollment
			A Currently Enrolled at Your School	B Completed School Program and Graduated	C Not Enrolled & Has Not Completed Program	

Appendix C

BPS:90/92 Facsimile Interview Instruments

Main Interview - p. C.1
Reliability Reinterview - p. C.53

MAIN INTERVIEW

TABLE OF CONTENTS

A.	Introduction and Validation	C.3
B.	Education Experiences	C.9
C.	Education Financing	C.19
D.	Work Experiences	C.22
E.	Other Education or Training	C.27
F.	Demographic Information	C.30
G.	Family Information	C.33
H.	Goals, Aspirations, Expectations	C.37
I.	Public Service and Voting Experience	C.40
J.	Locator information	C.41

A. **Introduction and Validation**

1. **May I speak with (respondent's name)?**
   - a. **(STUDENT IS AVAILABLE.) (CONTINUE WITH INTERVIEW.)**
   - b. **(STUDENT NOT AVAILABLE.) (MAKE APPOINTMENT.)**
   - c. **(STUDENT NO LONGER AT THIS PHONE NUMBER.) (GO TO TRACING MODE--TRY TO GET NEW NUMBER.)**
   - d. **(TELEPHONE NUMBER HAS BEEN CHANGED.) (GO TO TRACING MODE--TRY TO GET NEW NUMBER.)**
   - e. **(TELEPHONE HAS BEEN DISCONNECTED.) (DISCONTINUE--GO TO NEXT NUMBER IN TRACING MODE.)**
   - f. **(NO SUCH STUDENT KNOWN TO HOUSEHOLD.) (DISCONTINUE--GO TO NEXT NUMBER IN TRACING MODE.)**

2A. **(TIME STAMP ON THIS SCREEN) Hello, my name is (interviewer's name) and I am calling for the United States Department of Education from the Research Triangle Institute. Recently we sent a letter explaining the Beginning Postsecondary Students Study that we are now conducting. Did you receive the letter?**

- (1) **(YES.) (GO TO A.5.)**
- (2) **(NO.) (GO TO A.3)**

2B. **(ALTERNATE, FOR "RESTART" CASE--TIME STAMP ON THIS SCREEN.)**
   - a. **Hello, my name is (interviewer's name). I'm calling back from the Research Triangle Institute about the Beginning Postsecondary Students Study that we talked about recently. We would like to finish the interview now.**
   - (1) **(AVAILABLE.) (GO TO RESTART POINT.)**
   - (2) **(NOT AVAILABLE.) (RESCHEDULE.)**

3. **IF DID NOT RECEIVE LETTER (A.2A.a = "NO") GIVE RECAP OF LETTER, AS FOLLOWS: Let me summarize the letter. In 1990 you participated in the National Postsecondary Student Aid Study (NPSAS), and were told that you would be contacted later to find out how you had been doing. The National Center for Education Statistics is mandated by Federal law [20 U.S.C. 1221e-1] to conduct the Beginning Postsecondary Students Longitudinal Study. BPS collects data about the education and employment experiences of people who have continued their schooling after high school. These data will be used only for statistical reporting. Only a limited number of people will be authorized to have access to information which could be used to identify individuals. By law, they may only use the information for statistical reporting. While your participation in this study is strictly voluntary, your cooperation is necessary for the data to be accurate and reliable.**

Because you provided information before, some questions are based on your earlier responses. We estimate it will take from 35 to 45 minutes. During the interview, we will be asking about your education and work experiences, your goals, aspirations, expectations, and other related information. This study will determine how student participation in higher education can be better supported and encouraged. Your continued participation will be extremely helpful to future students and others who are interested in improving postsecondary education. If you have any questions about the survey, you can call our Project Staff, Graham Burkheimer, Dale DeWitt or Karen Mowbray, toll free at 1-800-334-8571.

Neither your participation in this study nor any answers you provide will affect any benefits you are receiving or expect to receive. You may decline to answer any question and may stop at any time. Now let's begin.

(NOTE: FILL IN WITHOUT EXPLICITLY ASKING)

- a. **REFUSES TO CONTINUE WITHOUT LETTER. (GO TO A.4)**
- b. **DOES NOT REQUEST NEW LETTER. (GO TO A.6)**

4. To what address should we mail the letter? (WRITE TO DIRECTORY SECTION OF TEMPORARY CATI RECORD. DO NOT PLACE IN CATI FILE AND DO NOT OVERWRITE!)

_____
address

_____ _____ _____
city state zip

Thank you very much for your time. We will call you back in a few weeks after you have had time to receive our letter. (GO TO CALL RESCHEDULE AND DISCONTINUE.)

5. (GIVE VERY BRIEF PURPOSE OF STUDY, AS FOLLOWS:) As we said in the letter, this is a continuation of the National Postsecondary Student Aid Study (NPSAS), in which you participated in 1990. Your continued participation will be extremely helpful to future students and others interested in improving postsecondary education.

The information you provide will be used only for statistical purposes to examine how student participation in higher education can be better supported and encouraged. If you have any questions about the survey, you can call our Project Staff, Graham Burkheimer, Dale DeWitt, or Karen Mowbray, toll free at 1-800-334-8571.

Because you provided information before, some questins are based on your earlier responses. We estimate it will take about 35 to 45 minutes. Your participation in the study has been and continues to be voluntary and neither your participation nor any answers you provide will affect any benefits you are receiving or expect to receive. You can decline to answer any question and may stop at any time. Now let's begin.

6. (TIME STAMP ON THIS SCREEN) First, lets make sure our records are correct. You were enrolled in (name of NPSAS school/college) at some time between July 1, 1989 and June 30, 1990. Is that right?
1 = YES. (GO TO A.11.)
2 = NO. (GO TO A.7.)

7. a. Your full name is (respondent's full name); that is, (SPELL NAME). Is that correct?
(1) (CORRECT.) (GO TO A.8.)
(2) (INCORRECT.) (GO TO 7.b.)

b. Have you ever been known by that name?
(1) (YES.)
(2) (NO.)

c. What is your full name? (WRITE TO DIRECTORY SECTION OF TEMPORARY CATI RECORD. DO NOT PLACE IN CATI FILE AND DO NOT OVERWRITE!)

_____ _____ _____
first name MI last name

8. a. (IF BIRTH DATE INCLUDED IN NPSAS FILE, CONTINUE WITH 8.a, OTHERWISE GO TO 8.b.) Is your date of birth:

__ __ __ __ __ __.
mo. day yr.

(1) (CORRECT.) (GO TO A.9.)
(2) (INCORRECT.) (GO TO 8.b.)

b. What is your date of birth? (WRITE TO DIRECTORY SECTION OF TEMPORARY CATI RECORD. DO NOT PLACE IN CATI DATA FILE AND DO NOT OVERWRITE!)

__ __ __ __ __ __
mo. day yr.

9. a. (IF GENDER DATA INCLUDED IN NPSAS FILE, CONTINUE WITH 9.a, OTHERWISE GO TO 9.b.) (UNLESS GENDER IS OBVIOUS) You are [MALE/FEMALE]. Is that right?

1 = YES
2 = NO

b. (IF NO TO 9.a OR IF GENDER DATA NOT INCLUDED IN NPSAS FILE AND GENDER NOT OBVIOUS) (WRITE TO DIRECTORY SECTION OF TEMPORARY CATI RECORD. DO NOT PLACE IN CATI FILE AND DO NOT OVERWRITE!)
Are you:
(1) Male?
(2) Female?

10. (IF INFORMATION FROM A.7 THROUGH A.9 INDICATES THAT THIS IS NOT THE RIGHT PERSON; E.G., IF "INCORRECT" TO 7.a AND "NO" TO 7.b, AND "INCORRECT" TO 8.a, OR "NO" TO 9.a) There seems to be a problem with the information I have. After checking with my supervisor, I may need to call you back. Thank you for your time. (DISCONTINUE INTERVIEW AND CODE AS PENDING NOT ELIGIBLE.)

(IF INFORMATION FROM A.7 THROUGH A.9 INDICATES THAT THIS IS THE RIGHT PERSON) You seem to be the right person. Do you know of any reason why our information shows you enrolled in (name of NPSAS school/college during 1989-90)? (INDICATED REASON, IF ANY)

_____

There seems to be a problem with the information I have. After checking with my supervisor, I may need to call you back. Thank you for your time.

(DISCONTINUE INTERVIEW AND CODE AS PENDING NOT ELIGIBLE)

11.A. While you were enrolled in (name of NPSAS school/college) in 1989-90, were you: (1) YES, (2) NO.
1. Taking at least one course for credit not counting high school credits or continuing education credits (CEUS)? (IF "YES," BLANK 11.A.2-3 AND GO TO A.12.)
2. In a program for a degree or formal award not counting high school degree? (IF "YES," BLANK 11.A.3 AND GO TO A.12.)
3. In a program for a specific occupation? (IF "YES," GO TO A.12.)

11.B. If you were not enrolled for any of these purposes, what was your purpose for being in school?

_____

(NOTE TO INTERVIEWER: IF REASON IS EQUIVALENT TO ONE OF THE OPTIONS IN 11.A, BACK UP AND CHANGE RESPONSE TO APPROPRIATE OPTION OF 11.A).

12. a. (IF NPSAS DATA FILLED IN FOR HIGH SCHOOL COMPLETION STATUS ASK 12.a, OTHERWISE GO TO 12.b) Our records show your high school diploma status to be (READ APPROPRIATE OPTION). Is this correct?
(1) (YES.) (GO TO 12.c.)
(2) (NO.) (GO TO 12.b.)

b. (IF "NO" TO 12.a OR NPSAS RECORD DOES NOT INCLUDE HIGH SCHOOL COMPLETION DATA) What type of high school diploma did you receive? (READ CHOICES AS NECESSARY.)
(1) REGULAR DIPLOMA FROM A PUBLIC OR PRIVATE HIGH SCHOOL (GO TO 12.c)
(2) DIPLOMA OR CERTIFICATE THROUGH THE GED OR OTHER EQUIVALENCY TEST. (GO TO 12.c)
(3) CERTIFICATE OF HIGH SCHOOL COMPLETION. (GO TO 12.c)
(4) DID NOT COMPLETE HIGH SCHOOL OR HIGH SCHOOL EQUIVALENT. (FILL IN 12.c AND 12.d WITH "97", AND GO TO 12.e.)

c. [IF NPSAS DATA FILLED IN, ASK 12.c, OTHERWISE GO TO 12.d] Our records show that you received your high school diploma or certificate in (fill in date). Is that correct?
1 = YES. (FILL IN A.12.d WITH PRELOAD AND GO TO 12.e)
2 = NO. (GO TO 12.d)

d. In what year did you receive your high school diploma or certificate? 19 __
year

e. [IF PRELOAD DATA OR RESPONSE TO A.12.d IS EQUAL TO OR GREATER THAN 1990 (INCLUDING 97), ASK QUESTION, OTHERWISE GO TO A.13]

Were you still completing high school requirements for the entire time you were enrolled in (Name of NPSAS school/college) between 1 July 1989 and 30 June 1990?

1. YES.
2. NO.

13. Was (Name of NPSAS school/college) the first higher education institution you enrolled in <u>after completing high school</u>?

a. YES. (Go to A.15)
b. NO. (Go to A.14)

14. What was the name of the first higher education institution you enrolled in <u>after completing high school</u>?

_____

15. When did you first enroll in (Name of NPSAS school/college, IF A.13 = "YES"/Name of other college--from A.14, IF A.13 = "No")

__ __ 19 __ __
(MONTH) (YEAR)

[IF DATE GIVEN IS PRIOR TO JULY 1989 OR LATER THAN JUNE 1990, INTERVIEWER MUST VERIFY DATE]

16. (TIME STAMP ON THIS SCREEN)

a. During your first enrollment period at any higher education institution between 1 July 1989 and 30 June 1990, were you classified as a freshman or a first-year student?
(1) (YES.) (FILL IN A.16.b AS 97, AND GO TO A.17.)
(2) (NO.) (GO TO 16.b.)

b. How were you classified? (READ CHOICES AS NECESSARY.)
(1) FRESHMAN (FIRST-YEAR STUDENT).
(2) SOPHOMORE (SECOND-YEAR STUDENT).
(3) JUNIOR (THIRD-YEAR STUDENT).
(4) SENIOR (FOURTH-YEAR STUDENT).
(5) SPECIAL STUDENT (E.G., NONMATRICULATED, NON DEGREE).
(6) GRADUATE STUDENT
(7) OTHER. (SPECIFY.) _____

[IF RESPONSE IS "1", PROGRAM CHANGES RESPONSE TO 16.a TO "1" AND MAKES RESPONSE TO A.16.b "97".]

[NOTE TO INTERVIEWER: IF RESPONSE TO "OTHER" SPECIFY INDICATES FRESHMAN OR FIRST-YEAR STUDENT, GO BACK AND CHANGE RESPONSE TO A.16.b TO FRESHMAN]

[PRIOR TO QUESTION A.17, CHECK FOR ELIGIBILITY AND FTB STATUS. STUDENT IS INELIGIBLE IF A.11.A.1 = "NO" AND A.11.A.2 = "NO" AND A11.A.3 = "NO". STUDENT IS ALSO INELIGIBLE IF A.12.e = "YES". STUDENT IS NOT FTB IF A.15 DATE IS EARLIER THAN MAY 1989. IF A.15 DATE IS MISSING, THEN STUDENT IS NOT FTB IF A.16.b = 3, 4, OR 6 OR IF ((A.12.d < 1989) AND (A.16.b = 2, 3, 4, OR 6)) OR IF ((A.12.d < 1987) AND (A.16.b = 5 OR 7)). IF NOT FTB OR NOT ELIGIBLE, MARK SECTION A AS COMPLETE, GO TO EARLY TERMINATION SCREEN AND FINAL RESULT CODE THE CASE AS INELIGIBLE OR NOT FTB, AS APPROPRIATE; OTHERWISE, GO TO A.17.]

17. (TIME STAMP ON THIS SCREEN) Next, we want to make sure our records are correct. (FOR THE FOLLOWING ITEMS, A.17 THROUGH A.21, FILL IN THE VARIABLES FROM PERTINENT NPSAS DATA [IF AVAILABLE], VERIFY EXISTING DATA, AND COLLECT ANY MISSING DATA.)

a. (IF BIRTH DATE FILLED IN, CONTINUE WITH 17.a, OTHERWISE GO TO 17.b.) Your date of birth is (BIRTHDAY). Is that right?
(1) (CORRECT.) (GO TO A.18.)
(2) (INCORRECT.) (GO TO 17.b.)

b. (IF "INCORRECT" TO 17.a OR BIRTH DATE NOT FILLED IN) What is your date of birth?
MONTH:
(1) JANUARY (2) FEBRUARY (3) MARCH (4) APRIL
(5) MAY (6) JUNE (7) JULY (8) AUGUST
(9) SEPTEMBER (10) OCTOBER (11) NOVEMBER
(12) DECEMBER
DAY _____
YEAR 19__ __

18. a. (IF GENDER FILLED IN, CONTINUE WITH 18.a, OTHERWISE GO TO 18.b.) (UNLESS GENDER OBVIOUS) You are (male/female), correct?
1 = YES (GO TO A.19)
2 = NO

b. (IF GENDER NOT OBVIOUS ASK QUESTION; IF OBVIOUS INTERVIEWER FILL IN) Are you:
(1) Male?
(2) Female?

19. a. (IF RACE DATA FILLED IN, CONTINUE WITH 19.a; OTHERWISE, GO TO 19.b.) Our records show your race to be (RACE). Is that correct?
(1) (CORRECT.) (GO TO A.19.c)
(2) (INCORRECT.) (GO TO 19.b.)

b. (IF "INCORRECT" TO 19.a OR RACE DATA NOT FILLED IN) Are you? (READ CHOICES.)
(1) WHITE.
(2) BLACK.
(3) AMERICAN INDIAN OR ALASKA NATIVE (ESKIMO, ALEUT).
(4) ASIAN OR PACIFIC ISLANDER.
(5) OTHER (SPECIFY.) _____
[IF RESPONSE NOT 5, PROGRAM FILLS IN SPECIFY WITH "NA"]

c. [IF RESPONSE TO 19.b ≠ 4, THEN FILL IN RESPONSE TO 19.c AS "NA" AND GO TO A.20. ELSE, IF NPSAS DATA FILLED IN, ASK A.19.c, OTHERWISE GO TO 19.d] We show that you are [FILL IN ASIAN GROUP]. Is that correct?
1 = YES. (GO TO A.20)
2 = NO.

d. (IF RESPONSE TO 19.b ≠ 4 FILL IN QUESTION AND SPECIFY WITH "NA") Are you?
(1) CHINESE (2) FILIPINO (3) HAWAIIAN (4) JAPANESE
(5) KOREAN (6) VIETNAMESE (7) ASIAN INDIAN
(8) SAMOAN (9) GUAMIAN (10) OTHER ASIAN OR PACIFIC ISLANDER (SPECIFY)
_____
[IF NOT 10, PROGRAMS FILLS IN SPECIFY AS "NA"]

20. a. (IF HISPANIC INDICATOR DATA FILLED IN, CONTINUE WITH 20.a; OTHERWISE, GO TO 20.b.) We show that you [are (IF HISPANIC INDICATOR = 1)/are not (IF HISPANIC INDICATOR = 2)] of Hispanic origin or descent. Is that correct?
(1) (CORRECT.) (IF INDICATOR = 1 THEN GO TO 20.c. IF INDICATOR = 2 THEN GO TO A.21)
(2) (INCORRECT.) (GO TO 20.b.)

b. Are you of Hispanic origin or descent?
(1) YES.
(2) NO. [FILL IN 20.c AND 20.d WITH "NA"; GO TO A.21]

c. [IF NPSAS DATA FILLED IN ASK 20.c, OTHERWISE SKIP TO 20.d]. Our records show that you are [FILL IN HISPANIC TYPE]. Is that correct?
1 = YES. (GO TO A.21)
2 = NO.

d. Are you?
(1) MEXICAN, MEXICAN AMERICAN, CHICANO
(2) CUBAN
(3) PUERTO RICAN
(4) OF SOME OTHER HISPANIC DESCENT (SPECIFY)
_____
[IF NOT 4, PROGRAM FILLS IN SPECIFY AS "NA"]

21. a. (IF CITIZENSHIP DATA FILLED IN, CONTINUE WITH 21.a, OTHERWISE GO TO 21.b) Our records show that you [are (IF CITIZENSHIP = 1)/are not (IF CITIZENSHIP = 2)] a U.S. citizen. Is this correct?
(1) YES. (IF STATUS CODE LESS THAN 3, GO TO SECTION B; OTHERWISE DISCONTINUE WITH EXIT SCREEN #2))
(2) NO. (GO TO 21.b)

b. (IF CITIZENSHIP DATA NOT FILLED IN OR "NO" RESPONSE TO 21.a) Are you a citizen of the United States?
(1) YES.
(2) NO.

c. (IF RESPONSE TO 21.a IS "NO" AND RESPONSE TO 21.b IS "YES") When did you receive your U.S. Citizenship?
MONTH:
(1) JANUARY (2) FEBRUARY (3) MARCH (4) APRIL
(5) MAY (6) JUNE (7) JULY (8) AUGUST
(9) SEPTEMBER (10) OCTOBER (11) NOVEMBER
(12) DECEMBER
YEAR: 19__ __

[IF STATUS CODE IS LESS THAN 3 AND GREATER THAN -2, GO TO SECTION B; OTHERWISE, DISCONTINUE WITH EXIT SCREEN #2 AND STATUS CODE INTERVIEW AS COMPLETED. IN EITHER CASE, MARK SECTION A AS COMPLETE.]

B. Education Experiences (TIME STAMP ON THIS SCREEN)

The next few questions are about your Educational Experiences since we last spoke with you. We would like to know the names of all postsecondary schools you enrolled in for credit (or to obtain a certificate, license, diploma, or other formal award) not counting corresspondence courses. We would also like to know about the terms during which you were enrolled. We are interested in all terms you were enrolled in all schools, even if you did not complete the term.

[READ THIS TO RESPONDENT ONLY IF THEY SEEM TO HAVE TROUBLE WITH WHAT "TERMS" MEANS. "TERMS" means different things at different postsecondary schools and colleges depending on the calendar system used by the school. Some schools are on a quarter system or semester, trimester, 4-4-1, or some other calendar system, to define terms. Schools may also have one or more summer sessions, which are additional terms. Other schools have specific fixed-length courses of instruction that may start at different times during the year and that may or may not be broken up into smaller units. In this case, the entire course of instruction may be a single term.]

1. First, we would like to ask you about the terms since June 1989 when you went to (NPSAS SCHOOL). We want to identify the starting and ending dates of each of these terms and to find out whether, during each term, you attended the school:
   (1) FULL-TIME.
   (2) AT LEAST HALF-TIME, BUT LESS THAN FULL-TIME.
   (3) LESS THAN HALF-TIME.

   [NOTE TO INTERVIEWERS: TRY TO LET RESPONDENT DETERMINE FULL-TIME, PART-TIME STATUS WITHOUT PROMPTING; IF NEEDED, HOWEVER, FULL-TIME IS TYPICALLY DEFINED AT COLLEGIATE INSTITUTIONS AS ENROLLED FOR 12 OR MORE CREDITS. THUS, HALF-TIME WOULD BE 6 HOURS. AT NON-COLLEGIATE INSTITUTIONS, DETERMINATION OF WHAT CONSTITUTES FULL-TIME IS FREQUENTLY PROBLEMATIC, PROMPT; WITH "WHAT DOES SCHOOL CONSIDER FULL-TIME?" A RULE OF THUMB IN HARD TO DETERMINE CASES IS 20 OR MORE CLASSROOM (CONTACT) HOURS PER WEEK.]

[PROGRAM DISPLAYS A SCREEN WITH THE FOLLOWING FORMAT:]

	Start Month	Start Year	End Month	End Year	FT/HT/PT 1 2 3
1.	_____	19__ __	_____	19__ __	__
2.	_____	19__ __	_____	19__ __	__
3.	_____	19__ __	_____	19__ __	__
4.	_____	19__ __	_____	19__ __	__
5.	_____	19__ __	_____	19__ __	__
6.	_____	19__ __	_____	19__ __	__
7.	_____	19__ __	_____	19__ __	__
8.	_____	19__ __	_____	19__ __	__
9.	_____	19__ __	_____	19__ __	__
10.	_____	19__ __	_____	19__ __	__
11.	_____	19__ __	_____	19__ __	__

[ALL NPSAS SCHOOL TERM INFORMATION (TERMS ENDING JULY 1989 OR LATER) IS GATHERED ON THIS ONE SCREEN. PRELOADED DATA WILL BE FILLED IN WHICH THE INTERVIEWER CAN VERIFY WITH THE RESPONDENT. EXISTING TERMS CAN BE CHANGED OR DELETED AND THEN NEW TERMS CAN BE ADDED (MAXIMUM OF 11 TERMS). AS EACH TERM IS ADDED, DELETED, OR MODIFIED, THE ENTIRE LIST IS SORTED BY THE START DATES. ALSO, ONCE THIS SCREEN HAS BEEN DISPLAYED, A FLAG IS SET SO THE PROGRAM WILL NOT BE RUN AGAIN.]

2. (TIME STAMP ON THIS SCREEN) Now I want to ask you about any other schools you may have attended. We need the names of those other schools and the starting and ending dates of the terms you attended. As before, we also want to determine if, during the term, you were enrolled

(1) FULL-TIME.
(2) AT LEAST HALF-TIME, BUT LESS THAN FULL-TIME.
(3) LESS THAN HALF-TIME.

[NOTE TO INTERVIEWER: BE SURE TO COLLECT THE NAME OF THE COLLEGE OR UNIVERSITY ATTENDED AND NOT THE NAME OF A SCHOOL (E.G., BUSINESS SCHOOL) WITHIN THE COLLEGE OR UNIVERSITY. AS AN EXAMPLE, WE WANT TO KNOW THAT RESPONDENT ATTENDED DUKE UNIVERSITY, NOT THE FUQUA SCHOOL OF BUSINESS, WHICH IS PART OF DUKE UNIVERSITY.]

[NOTE TO INTERVIEWERS: TRY TO LET RESPONDENT DETERMINE FULL-TIME, PART-TIME STATUS WITHOUT PROMPTING; IF NEEDED, HOWEVER, FULL-TIME IS TYPICALLY DEFINED AT COLLEGIATE INSTITUTIONS AS ENROLLED FOR 12 OR MORE CREDITS. THUS, HALF-TIME WOULD BE 6 HOURS. AT NON-COLLEGIATE INSTITUTIONS, DETERMINATION OF WHAT CONSTITUTES FULL-TIME IS FREQUENTLY PROBLEMATIC, PROMPT; WITH "WHAT DOES SCHOOL CONSIDER FULL-TIME?" A RULE OF THUMB IN HARD TO DETERMINE CASES IS 20 OR MORE CLASSROOM (CONTACT) HOURS PER WEEK.]

	School Name	Month	Start Year	Start Month	End Year	End FT/HT/PT 1 2 3
1	_____	__ __	19__ __	__ __	19__ __	__
2	_____	__ __	19__ __	__ __	19__ __	__
3	_____	__ __	19__ __	__ __	19__ __	__
4	_____	__ __	19__ __	__ __	19__ __	__
5	_____	__ __	19__ __	__ __	19__ __	__
6	_____	__ __	19__ __	__ __	19__ __	__
7	_____	__ __	19__ __	__ __	19__ __	__
8	_____	__ __	19__ __	__ __	19__ __	__
9	_____	__ __	19__ __	__ __	19__ __	__
10	_____	__ __	19__ __	__ __	19__ __	__

[ALL ADDITIONAL SCHOOL TERM INFORMATION IS GATHERED ON THIS ONE SCREEN. PRELOADED DATA (TERMS INCLUDING JULY 1989 OR LATER) WILL BE FILLED IN, WHICH THE INTERVIEWER CAN VERIFY WITH THE RESPONDENT. EXISTING TERMS CAN BE CHANGED OR DELETED AND THEN NEW TERMS CAN BE ADDED (MAXIMUM OF 10 TERMS AND UP TO FOUR DIFFERENT SCHOOLS). AS EACH TERM IS ADDED, CHANGED, OR DELETED, THE ENTIRE LIST IS SORTED BY THE START DATES. ALSO, ONCE THIS SCREEN HAS BEEN DISPLAYED, A FLAG IS SET SO THE PROGRAM WILL NOT BE RUN AGAIN.]

[B.3 IS REPEATED FOR ANY SCHOOL/COLLEGES IDENTIFIED IN B.2 THAT WERE NOT PRELOADED.]

3. (TIME STAMP ON FIRST REPEAT OF THIS SCREEN, IF ASKED)
What is the address (city [post office] and state) of (the first, second, etc. [DEPENDING ON RESPONSE TO B.2] school or college)?

[USER EXIT AND SCREENS FOR VERIFICATION OF IPEDS CODE GO HERE. IF SCHOOL IS IDENTIFIED, IPEDS CODE IS FILLED IN AND INFORMATION IS PICKED UP FROM THE IC DATA (IF AVAILABLE) AS TO SCHOOL'S LEVEL, CONTROL, AND TUITION AND FEES (IN JURISDICTION AND OUT-OF-JURISDICTION, IF PUBLIC).]

Institute name: [PROGRAM FILLS IN]
Address: City (Post Office): _____ State: _____

NOTE TO INTERVIEWERS: CHECK WITH RESPONDENT IF NEEDED TO BE SURE OF SPELLING OF CITY OR POST OFFICE. USE NO PUNCTUATION MARKS IN CITY NAME AND DO NOT ABBREVIATE; SEE SPECIAL INSTRUCTIONS. ALSO, PROBE RESPONDENT FOR CORRECT SCHOOL NAME; SOME WILL GIVE A SCHOOL WITHIN A UNIVERSITY RATHER THAN THE UNIVERSITY (E.G., FUQUA SCHOOL OF BUSINESS RATHER THAN DUKE UNIVERSITY).]

[IF LAST REPEAT OVER ADDITIONAL SCHOOLS, GO TO B.4; OTHERWISE REPEAT B.3.]

[B.4 IS REPEATED, AS APPLICABLE, FOR EACH SCHOOL, INCLUDING NPSAS SCHOOL, THAT HAS BEEN IDENTIFIED]

4. [ASK QUESTION ONLY IF EITHER LEVEL OR CONTROL OF SCHOOL UNDER CONSIDERATION IS MISSING (I.E., PRELOAD INDICATES NO INFORMATION AVAILABLE, IC DATA PICK UP FROM IPEDS MATCH IS "MISSING", OR NO IPEDS MATCH. IF DATA AVAILABLE FROM PRELOAD OR IPEDS MATCH PICK UP, PROGRAM FILLS IN QUESTION WITH AVAILABLE DATA.]

(TIME STAMP ON FIRST REPEAT OF THIS SCREEN

a. [QUESTION ASKED ONLY IF "LEVEL" MISSING]
Was (school name)
1. A university or 4-year college?
2. A 2- or 3-year junior college, community college, or technical/vocational school?
3. A less than 2-year vocational, technical, or occupational school or college?
4. Some other type of school?

b. [QUESTION ASKED ONLY IF "CONTROL" MISSING]
Was (school name)
1. Public
2. Private (nonprofit)
3. Private (for profit)

[IF LAST SCHOOL GO TO B.5, OTHERWISE, REPEAT B.4]

5. [IF ATTENDED ONLY NPSAS SCHOOL (I.E., NO PRELOAD OR NEW ENTRIES IN B.2), GO TO B.6; OTHERWISE, CONTINUE WITH B.5.]
(TIME STAMP ON THIS SCREEN, IF ASKED.) Since you were enrolled in more than one postsecondary school, did you transfer credits, courses, or clock hours from any of these schools to another of the schools?

(1) YES.
(3) NO.

[REPEAT B.6 FOR ALL TERMS SINCE OR DURING FEBRUARY 1990, IN NPSAS SCHOOL AND THE FIRST, SECOND, ETC. OTHER SCHOOL/COLLEGE (INCLUDING PRELOADS). LIMIT 12 TERM/SCHOOL COMBINATIONS TOTAL. STORE WITH EACH REPEAT BLOCK AN INDICATOR OF SCHOOL AND TERM WITHIN SCHOOL.]

Now I need to ask you some questions about each of the terms you were enrolled for credit (or working toward a formal award) since February 1990. (THIS IS A TRANSITION SCREEN.)

6. (TIME STAMP ON EACH REPEAT OF THIS SCREEN)

a. During the term from (starting and ending dates of first enrollment for credit, beginning with the first term that includes or follows February 1990) at (name of first school/college in which enrolled during or after February 1990), how many courses did you take?

_____
(NUMBER OF COURSES)

[IF LAST TERM AT SCHOOL UNDER CONSIDERATION, CONTINUE WITH 6.b; OTHERWISE, REPEAT 6.a FOR NEXT TERM AT SCHOOL CURRENTLY UNDER CONSIDERATION.]

b. How were you classified by (FILL IN SCHOOL NAME) during this term (FILL IN DATES)? (READ CHOICES FIRST TIME PRESENTED SUBSEQUENTLY, READ AS NECESSARY.)

(1) FIRST-YEAR OR FRESHMAN.
(2) SECOND-YEAR OR SOPHOMORE.
(3) THIRD-YEAR OR JUNIOR.
(4) FOURTH-YEAR OR SENIOR.
(5) SPECIAL STUDENT (E.G., NONMATRICULATED NON-DEGREE).
(6) OTHER

c. Was your course work during this term at (FILL IN NAME OF CURRENT SCHOOL] leading toward a specific degree or other formal award (license, diploma, or certificate)?
1. YES. (GO TO 6.d)
2. NO. (FILL IN 6.d AS "1" AND GO TO 6.e.)

d. What type of degree or formal award were you working toward?
1. NONE. (PROGRAM CHANGES RESPONSE TO 6.c TO "NO", AND GOES TO 6.e)
2. LESS THAN 2-YEAR VOCATIONAL/OCCUPATIONAL CERTIFICATE OR DIPLOMA. (FILL IN 6.e AS "1" AND GO TO 6.f)
3. LESS THAN 2-YEAR VOCATIONAL/OCCUPATIONAL LICENSE (FILL IN 6.e AS "1" AND GO TO 6.f)
4. 2- OR 3-YEAR VOCATIONAL/OCCUPATIONAL DEGREE OR DIPLOMA (FILL IN 6.e AS "1" AND GO TO 6.f)
5. 2- OR 3-YEAR ASSOCIATES DEGREE (GO TO 6.e)

6. 4- OR 5-YEAR BACHELOR'S DEGREE (FILL IN 6.e AS "2", FILL IN 6.f THROUGH 6.i AS "NA", AND GO TO 6.j)

[NOTE TO INTERVIEWER: WE MUST HAVE A RESPONSE TO THIS QUESTION.]

e. Was your program of study during this term mainly
1. VOCATIONAL/TECHNICAL
2. ACADEMIC

[FILL IN 6.f THROUGH 6.i AS "NA" AND GO TO 6.j.]

[NOTE TO INTERVIEWER: WE MUST HAVE A RESPONSE TO THIS QUESTION.]

f. In what? _____

[TO BE CODED ON-LINE INTO TECHNICAL/VOCATIONAL FIELD OF STUDY CODE.]

g. Did you complete all work toward the [certificate or diploma (IF 6.d = 2)/license (IF 6.d = 3)/diploma or degree (IF 6.d = 4)] while at (FILL IN SCHOOL NAME) during this term?
(1) YES.
(2) NO.

h. Did you ever obtain the [certificate or diploma (IF 6.d = 2)/license (IF 6.d = 3)/diploma or degree (IF 6.d = 4)]?
(1) YES. (GO TO 6.i)
(2) NO. (FILL IN 6.i THROUGH 6.k WITH "NA" AND THEN GO TO REPEAT OF 6.a FOR NEXT SCHOOL, IF ANY, OR TO B.7, IF NOT.)

i. When did you receive the [certificate or diploma (IF 6.d = 2)/license (IF 6.d = 3)/diploma or degree (IF 6.d = 4)]

__ __ 19__ __
month year

[FILL IN 6.j THROUGH 6.k AS "NA" AND THEN GO TO ADDITIONAL REPEAT OF 6.a FOR NEXT SCHOOL, IF ANY OR TO B.7, IF NOT]

j. What was your major field of study during this term?
_____

[ON-LINE CODING FOR FIELD OF STUDY BASED ON RESPONSE TO 6.e.]

[IF RESPONSE TO 6.d WAS 1, FILL 6.k AS "NA" AND THEN GO TO ADDITIONAL REPEAT OF 6.a FOR NEXT SCHOOL, IF ANY, OR TO B.7, IF NOT]

k. Did you finish all work required for the degree during this term?
(1) YES.
(2) NO.

(IF LAST REPEAT OVER TERMS FOR ALL SCHOOLS, GO TO B.7; OTHERWISE, REPEAT 6.a FOR NEXT SCHOOL.)

7. (TIME STAMP ON THIS SCREEN) [IF ATTENDED ONLY NPSAS SCHOOL SINCE JULY 1989, THEN DESIGNATE "OTHER PRINCIPAL SCHOOL" AS "97," AND GO TO QUESTION 8.A, OTHERWISE, ASK THESE QUESTIONS TO DETERMINE IF THERE IS ANOTHER PRINCIPAL SCHOOL.]

a. Do you consider (any of the schools, IF MORE THAN 1 ADDITIONAL SCHOOL) (FILL IN NAMES OF ALL ADDITIONAL SCHOOLS) to be a "primary school" in your postsecondary education?

1. YES.
2. NO. (FILL IN OTHER PRINCIPAL SCHOOL AS "97," AND GO TO QUESTION 8.A)

[NOTE TO INTERVIEWER: SCHOOL IS A PRIMARY SCHOOL IF STUDENT ENROLLED IN THE SCHOOL TO OBTAIN A SPECIFIC DEGREE OR FORMAL AWARD FROM THAT SCHOOL. SCHOOL IS NOT A PRIMARY SCHOOL IF STUDENT ENROLLED ONLY FOR PERSONAL ENRICHMENT OR TO GAIN CREDITS TO TRANSFER TO SOME OTHER SCHOOL.]

b. [IF ONLY ONE ADDITIONAL SCHOOL, DESIGNATE OTHER PRINCIPAL SCHOOL AS "02," AND GO TO 8.A; OTHERWISE, ASK QUESTION.]
Of the other schools you have attended, which of the following do you consider the principal (most important) school in your education process?

1. [THIS OPTION, CORRESPONDING TO NPSAS SCHOOL, ALWAYS BLANK]
2. {
3. | FILL IN OTHER SCHOOLS FROM B.2, AND FILL IN OTHER
{ PRINCIPAL SCHOOL WITH NUMBER CHOSEN.
4. |
5. {

[NOTE TO INTERVIEWERS: WE MUST HAVE A RESPONSE TO THIS QUESTION]

[B.8.A AND B.9.A ARE ASKED ONLY FOR NPSAS SCHOOL]

8.A. (TIME STAMP ON THIS SCREEN.) I am now going to read you a list of school-related activities that you may or may not have participated in at any time while at (name of NPSAS school). Please answer (1) Never, (2) Once, (3) Several Times, or (4) Often. Roughly, how often per term did you...

[NOTE: PICK A RANDOM START POINT BETWEEN a AND k, AND STORE THIS START POINT AS A VARIABLE RANDB1A. PRESENT ITEMS IN ORDER, STARTING AT THE RANDOM POINT AND WRAPPING AS NECESSARY.]

(a) Talk with faculty about academic matters outside of class time?
(b) Meet with advisor concerning academic plans?
(c) Have informal or social contacts with advisor or other faculty members outside of classrooms/office?
(d) Participate in study groups with other students outside of the classroom?
(e) Go places with friends from the school (e.g., concerts, movies, restaurants, sporting events)?
(f) Participate in one or more student assistance centers or programs (e.g., counseling programs, learning skills center, minority student services, health services)?
(g) Participate in school clubs (e.g., student government, religious clubs, service activities)?
(h) Attend academic or career-related lectures, conventions, or field trips with friends?
(i) Participate in and practice with others for music, drama, choir, etc.?
(j) Participate in and practice with others for intramural or nonvarsity sports?
(k) Participate in and practice with others for intercollegiate or varsity sports?

9.A. I am now going to ask you about your satisfaction with certain school features and services at (name of NPSAS school). For the services I mention, please first indicate whether or not you used the service, and then indicate your satisfaction. (1) Very Dissatisfied, (2) Somewhat Dissatisfied, (3) Somewhat Satisfied, or (4) Very Satisfied [(5) Didn't use (where applicable)].

[NOTE: PICK A RANDOM START POINT BETWEEN a AND p AND STORE THIS START POINT AS A VARIABLE, RANDB2A. PRESENT ITEMS IN ORDER, STARTING AT THE RANDOM POINT AND WRAPPING AS NECESSARY.]

(a) The ability of most of the teachers.

(b) The social life.
(c) Your intellectual growth.
(d) Special tutoring or remedial instruction
(e) Academic counseling.
(f) Financial aid counseling.
(g) Personal counseling.
(h) Career or job counseling.
(i) Job placement/recruitment services
(k) Cultural activities, music, art, drama, etc.
(n) Sports and recreation facilities.
(o) The financial cost of attending.
(p) The prestige of the school.

[NOTE: OPTIONS j, l, AND m INTENTIONALLY OMITTED.]

9AD_AVAIL [IF RESPONSE TO 9.A.d WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was special tutoring or remedial instruction available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

9AE_AVAIL [IF RESPONSE TO 9.A.e WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was academic counseling available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

9AF_AVAIL [IF RESPONSE TO 9.A.f WAS "NEVER", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was financial aid counseling available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

9AG_AVAIL [IF RESPONSE TO 9.A.g WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was personal counseling available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

9AH_AVAIL [IF RESPONSE TO 9.A.h WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was career or job counseling available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

9AI_AVAIL [IF RESPONSE TO 9.A.i WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Were recruiting or job placement services available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

9AN_AVAIL [IF RESPONSE TO 9.A.n WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Were sports and recreation facilities available at (FILL IN NAME OF NPSAS SCHOOL).
(1) YES.
(2) NO.

[B.8.B AND B.9.B ARE ASKED ONLY FOR OTHER PRINCIPAL SCHOOL ATTENDED (IF ANY), AS DETERMINED IN B.]

8.B. **[IF "OTHER PRINCIPAL SCHOOL" IS "97," FILL IN ALL RESPONSES TO 8.B AND 9.B AS "97," AND GO TO B.10; OTHERWISE ASK QUESTIONS.]**
I am now going to read you a list of school-related activities that you may or may not have participated in at any time while at (name of other principal school). Please answer (1) Never, (2) Once, (3) Several Times, or (4) Often. Roughly, how often per term did you...

[NOTE: PICK A RANDOM START POINT BETWEEN a AND k, AND STORE THIS START POINT AS A VARIABLE RANDB1B. PRESENT ITEMS IN ORDER, STARTING AT THE RANDOM POINT AND WRAPPING AS NECESSARY.]

(a) Talk with faculty about academic matters outside of class time?
(b) Meet with advisor concerning academic plans?
(c) Have informal or social contacts with advisor or other faculty members outside of classrooms/office?
(d) Participate in study groups with other students outside of the classroom?
(e) Go places with friends from the school (e.g., concerts, movies, restaurants, sporting events)?
(f) Participate in one or more student assistance centers or programs (e.g., counseling programs, learning skills center, minority student services, health services)?
(g) Participate in school clubs (e.g., student government, religious clubs, service activities)?
(h) Attend academic or career-related lectures, conventions, or field trips with friends?
(i) Participate in and practice with others for music, drama, choir, etc.?
(j) Participate in and practice with others for intramural or nonvarsity sports?
(k) Participate in and practice with others for intercollegiate or varsity sports?

9.B **Now, I'm going to ask you about your satisfaction with school features and services at (name of other principal school). As before, please indicate whether or not you used the services I mention, then state satisfaction as: (1) Very Dissatisfied, (2) Somewhat Dissatisfied, (3) Somewhat Satisfied, or (4) Very Satisfied [(5) Didn't use (where applicable).]**

[NOTE: PICK A RANDOM START POINT BETWEEN a AND p AND STORE THIS START POINT AS A VARIABLE, RANDB2B. PRESENT ITEMS IN ORDER, STARTING AT THE RANDOM POINT AND WRAPPING AS NECESSARY.]

(a) The ability of most of the teachers.
(b) The social life.
(c) Your intellectual growth.
(d) Special tutoring or remedial instruction
(e) Academic counseling.
(f) Financial aid counseling.
(g) Personal counseling.
(h) Career or job counseling.
(i) Job placement/recruitment services
(k) Cultural activities, music, art, drama, etc.
(n) Sports and recreation facilities.
(o) The financial cost of attending.
(p) The prestige of the school.

[NOTE: OPTIONS j, l, AND m INTENTIONALLY OMITTED.]

9BD_AVAIL [IF RESPONSE TO 9.B.d WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was special tutoring or remedial instruction available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

9BE_AVAIL [IF RESPONSE TO 9.B.e WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was academic counseling available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

9BF_AVAIL [IF RESPONSE TO 9.B.f WAS "NEVER", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was financial aid counseling available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

9BG_AVAIL [IF RESPONSE TO 9.B.g WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was personal counseling available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

9BH_AVAIL [IF RESPONSE TO 9.B.h WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Was career or job counseling available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

9BI_AVAIL [IF RESPONSE TO 9.B.i WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Were recruiting or job placement services available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

9BN_AVAIL [IF RESPONSE TO 9.B.n WAS "DIDN'T USE", ASK QUESTION; OTHERWISE, FILL IN AS 97.]
Were sports and recreation facilities available at (FILL IN NAME OF OTHER PRINCIPAL SCHOOL).
(1) YES.
(2) NO.

10. (TIME STAMP ON THIS SCREEN.) During the terms ending between July 1, 1989 through June 30, 1990, while you were enrolled in (fill in name(s) of <u>all</u> school(s)/college(s) in which enrolled for terms ending during the time period), please estimate how well you did in all your coursework. (READ CHOICES AS NECESSARY.)

(a) Mostly A's (3.75-4.00 grade point average).
(b) A's and B's (3.25-3.74 grade point average).
(c) Mostly B's (2.75-3.24 grade point average).
(d) B's and C's (2.25-2.74 grade point average).
(e) Mostly C's (1.75-2.24 grade point average).
(f) C's and D's (1.25-1.74 grade point average).
(g) Mostly D's or below (less than 1.25).
(h) Other (e.g., non-graded, pass/fail).

11. [IF NOT ENROLLED DURING OR AFTER JULY 1990, THEN FILL IN B.11 WITH RESPONSE TO B.10 AND GO TO B.12; IF ENROLLED DURING OR AFTER JULY 1990, THEN ASK QUESTION].

During the entire period between July 1989 through the present, while you were enrolled in (FILL IN NAME(S) OF ALL SCHOOL(S)/COLLEGE(S) in which enrolled during the time period), please estimate how well you have done in all your course work. (READ CHOICES AS NECESSARY).

(a) Mostly A's (3.75-4.00 grade point average).
(b) A's and B's (3.25-3.74 grade point average).
(c) Mostly B's (2.75-3.24 grade point average).
(d) B's and C's (2.25-2.74 grade point average).
(e) Mostly C's (1.75-2.24 grade point average).
(f) C's and D's (1.25-1.74 grade point average).
(g) Mostly D's or below (less than 1.25).
(h) Other (e.g., non-graded, pass/fail).

12. (TIME STAMP ON THIS SCREEN.) [ASK THIS QUESTION FOR NPSAS SCHOOL.]
During the period from July 1989 through June 1990, when you were enrolled in (NPSAS school), how frequently did you receive the following assistance from your school(s)? (1) Never, (2) 1-3 Times, (3) 4 or More Times.

(a) Additional instruction or tutoring for specific courses. [IF 9.A.d = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(b) Remedial instruction or tutoring to improve basic writing and computational skills. [IF 9.A.d = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(c) Career counseling. [IF AND 9.A.h = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(d) Academic counseling [IF 9.A.e = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(e) Financial aid counseling. [IF AND 9.A.f = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(f) Personal counseling. [IF 9.A.g = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]

13. [IF ANY OF SERVICES (a-f) LISTED IN B.12, WERE RECEIVED (i.e., RESPONSES OF 2 OR 3), ASK THE FOLLOWING FOR EACH SERVICE RECEIVED. [ALLOW RESPONSES FOR B.13.a AND B.13.b FOR EACH OF THE SIX SERVICES. IF SERVICE NOT RECEIVED, FILL IN APPROPRIATE RESPONSE FOR 13.a AND 13.b AS 97]; IF NO SERVICES RECEIVED, FILL IN ALL REPEATS OF 13.a AND 13.b AS 97 AND GO TO B.14.)

a. When you received (fill in name of service received), how was the service most often provided?

(a) In group sessions.
(b) Individually.
(c) Both.

b. Who was the primary provider of (fill in name of service received)? (READ CHOICES AS NECESSARY.)

(a) FINANCIAL AID OFFICE STAFF.
(b) JOB PLACEMENT OFFICE STAFF.
(c) FACULTY.
(d) STUDENTS.
(e) OTHER PROFESSIONALS.
(f) A COMPUTER PROGRAM.
(g) OTHER

14. (IF ENROLLED IN OTHER PRINCIPAL SCHOOL/COLLEGE BETWEEN JULY 1990 THROUGH JUNE 1991 ASK THIS QUESTION FOR OTHER PRINCIPAL SCHOOL; ELSE, IF ENROLLED IN NPSAS SCHOOL BETWEEN JULY 1990 THROUGH JUNE 1991, ASK QUESTION FOR NPSAS SCHOOL; OTHERWISE, FILL IN RESPONSES AS 97, AND GO TO SECTION C.)
During the period between July 1990 and June 1991, when you were enrolled in (fill in name of other principal school or NPSAS school, as applicable), how frequently did you receive the following assistance from your school(s)? (1) Never, (2) 1-3 Times, (3) 4 or More Times.

(a) Additional instruction or tutoring for specific courses. [IF USING NPSAS SCHOOL AND 9.A.d = "DIDN'T USE", (OR IF USING OTHER PRINCIPAL SCHOOL AND 9.B.d = "DIDN'T USE", FILL IN "NEVER" AND DO NOT ASK.]

(b) Remedial instruction or tutoring to improve basic writing and computational skills. [IF USING NPSAS SCHOOL AND 9.A.d = "DIDN'T USE", OR IF USING OTHER PRINCIPAL SCHOOL AND 9.B.d = "DIDN'T USE", FILL IN "NEVER" AND DO NOT ASK.]

(c) Career counseling. [IF USING NPSAS SCHOOL AND 9.A.h = "DIDN'T USE", OR IF USING OTHER PRINCIPAL SCHOOL AND 9.B.h = "DIDN'T USE," FILL IN "NEVER" AND DO NOT ASK.]

(d) Academic counseling. [IF USING NPSAS SCHOOL AND 9.A.e = "DIDN'T USE", OR IF USING OTHER PRINCIPAL SCHOOL AND 9.B.e = "DIDN'T USE,", FILL IN "NEVER" AND DO NOT ASK.]

(e) Financial aid counseling. [IF USING NPSAS SCHOOL AND 9.A.f = "DIDN'T USE", OR IF USING OTHER PRINCIPAL SCHOOL AND 9.B.f = "DIDN'T USE," FILL IN "NEVER" AND DO NOT ASK.]

(f) Personal counseling. [IF USING NPSAS SCHOOL AND 9.A.g = "DIDN'T USE", OR IF USING OTHER PRINCIPAL SCHOOL AND 9.B.g = "DIDN'T USE," FILL IN "NEVER" AND DO NOT ASK.]

C. Education Financing (TIME STAMP ON SECTION C START SCREEN)

[IF NO POSTSECONDARY EDUCATION SINCE FEBRUARY 1990, GO TO SECTION D]

The next few questions are about your education finances and financial aid. Financial aid includes grants, scholarships, student loans, work-study, fellowships, assistantships, and assistance with education from an employer or from the military. It does not include financial assistance from family or friends.

[C.1 THROUGH C.3 ARE REPEATED FOR EACH TERM AT EACH SCHOOL IDENTIFIED IN SECTION B (NPSAS SCHOOL, PRELOAD AND "OTHERS"--LIMIT OF 12 SCHOOL/TERM COMBINATIONS. EACH REPEAT BLOCK SHOULD INCLUDE VARIABLES IDENTIFYING THE SCHOOL AND TERM WITHIN SCHOOL REFERENCED.]

1. (TIME STAMP ON EACH REPEAT OF THIS SCREEN) For (fill in name of first, second, third, etc., school/college in which enrolled during or after February 1990), let's talk about the term from (starting and ending dates of first enrollment for credit, beginning with the first term that includes or follows February 1990). Where did you live during this term? (READ CHOICES FIRST TIME THROUGH; SUBSEQUENTLY READ AS NECESSARY)
   1. IN SCHOOL-PROVIDED HOUSING.
   2. IN A SORORITY/FRATERNITY HOUSE.
   3. IN YOUR OWN APARTMENT OR HOUSE (NOT WITH PARENTS BUT PERHAPS WITH FRIENDS OR FAMILY).
   4. IN EMPLOYER-PROVIDED HOUSING (INCLUDING MILITARY).
   5. WITH PARENTS OR GUARDIAN.
   6. WITH RELATIVES, OTHER THAN PARENTS, SPOUSE, OR CHILDREN.
   7. OTHER SITE.

2. Did you receive financial aid for the (fill in starting and ending dates of the term being discussed) term at (name of school/college at which enrolled during that term) [FOR FIRST TIME THROUGH ONLY ADD THE FOLLOWING: Please do not include financial assistance from family or friends.]?
   1 = YES. (GO TO C.3.)
   2 = NO. (FILL IN ALL RESPONSES TO C.3 AS "NO", THEN, IF LAST REPEAT OF C.1-C.3 GO TO C.4; OTHERWISE GO BACK TO REPEAT OF C.1)

3. For this term, did you receive: (YES OR NO TO EACH. READ CHOICES ON FIRST REPEAT, ON SUBSEQUENT REPEATS, READ AS NECESSARY.)
   1. GRANT(S).
   2. SCHOLARSHIP(S)
   3. STUDENT LOAN(S), OTHER THAN LOAN(S) FROM FAMILY OR FRIENDS OR LOANS TO PARENTS.
   4. TUITION BENEFITS OR OTHER EDUCATION ASSISTANCE FROM EMPLOYER OR UNION.

[IF LAST REPEAT OF C.1 - C.3, CONTINUE WITH C.4; OTHERWISE, GO TO C.1 FOR ADDITIONAL REPEAT]

4. (ASK ONLY IF, FROM APPROPRIATE REPEATS OF C.2, ANY FINANCIAL AID WAS RECEIVED FOR ANY TERM IN ANY SCHOOL/COLLEGE THAT ENDED DURING THE 1990-91 SCHOOL YEAR: JULY 1990 - JUNE 1991) (TIME STAMP ON THIS SCREEN, IF ASKED)

   What was the total amount of financial aid received (i.e., awarded and accepted) from all sources, except parents, family, and friends, for terms ending between July 1990 - June 1991? (INFORMATION REQUESTED HERE IS FINANCIAL AID ACTUALLY USED. IF FINANCIAL AID WAS APPROVED BUT STUDENTS DID NOT ACCEPT OR USE THE AID, IT SHOULD NOT BE INCLUDED.) $_____

5. (ASK ONLY IF, FROM APPROPRIATE REPEATS OF C.2, ANY FINANCIAL AID RECEIVED FOR ANY TERM IN ANY SCHOOL/COLLEGE THAT ENDED DURING THE 1991-92 SCHOOL YEAR: JULY 1991 - JUNE 1992 OR CURRENT DATE, WHICHEVER IS EARLIER) (TIME STAMP ON THIS SCREEN, IF ASKED)

   What was the total amount of financial aid received (i.e., awarded and accepted) from all sources, except parents, family, and friends, for terms ending since June 1991? (INFORMATION REQUESTED HERE IS FINANCIAL AID ACTUALLY USED. IF FINANCIAL AID WAS APPROVED BUT STUDENT DID NOT ACCEPT OR USE THE AID, IT SHOULD NOT BE INCLUDED) $_____

   [REPEAT QUESTIONS 6 AND 7 FOR EACH SCHOOL IDENTIFIED IN SECTION B THAT WAS ATTENDED SINCE FEBRUARY OF 1990.]

6. [ASK QUESTION ONLY IF INSTITUTION UNDER CONSIDERATION WAS A PUBLIC INSTITUTION (FROM PRELOAD, IPEDS PICK-UP, OR B.4.b; OTHERWISE PROGRAM FILLS IN AS "97".]
   While you attended [FILL IN SCHOOL NAME], was your tuition base
   (1) LOCAL JURISDICTION (IN-STATE, IN-COUNTY, IN-CITY, AS APPLICABLE)
   (2) NON LOCAL JURISDICTION (OUT-OF-STATE, OUT-OF-COUNTY, OUT-OF-CITY, AS APPLICABLE.)

7. [ASK QUESTION ONLY IF (APPROPRIATE, FROM C.6, IF PUBLIC; OR OUT-OF-JURISDICTION, IF PRIVATE) TUITION AND FEES AMOUNT READ IN DURING IPEDS CODING IS MISSING. IF NOT MISSING, PROGRAM FILLS IN THE IC FILE DATA THAT WERE READ IN OR PRELOADED.]

Approximately how much are the annual tuition and fees (excluding summer terms) for [FILL IN SCHOOL NAME]?

$_____

[IF THIS WAS LAST REPEAT OVER SCHOOLS, GO TO C.8; OTHERWISE, GO BACK TO C.6. FOR ANOTHER REPEAT.]

8. (TIME STAMP ON THIS SCREEN)

a. [IF RESPONSE OF "YES" TO ANY REPEAT OF C.2, FILL IN 8.a AS "YES", AND GO TO 8.b; OTHERWISE ASK 8.a]
Since February 1990, have you ever applied for financial aid for your postsecondary education?
(1) YES.
(2) NO. (FILL IN 8.b AND 8.c AS "97" AND GO TO C.9)

b. Since February 1990, have you ever failed to receive aid that you applied for?
(1) YES.
(2) NO.

c. Since February 1990 have you ever been offered any student financial aid that you didn't accept?
(1) YES.
(2) NO.

9. For the entire time you were in postsecondary school since February 1990, did you use money for your education or associated living expenses from any of the following sources?

(1) YES, (2) NO.

a. Personal earnings or savings?
b. Spouse earnings or savings?
c. Contributions from parents (not to be repaid)?
d. Loans from parents (to be repaid)?
e. Contribution from other relatives (not parents) or friends (not to be repaid)?
f. Loans from other relatives (to be repaid) or friends?
g. Other personal or family resources?

10. (IF YES TO ANY REPEAT OF C.3.3, OR TO 9.d., or 9.f. OR IF NPSAS DATA INDICATES YES TO OWE ON LOANS (i.e., PRIORLN=1) ASK THIS QUESTION; OTHERWISE FILL IN ALL QUESTION 10 AND 11 RESPONSES AS "NA" AND SKIP TO C.12)

a. So far, about how much in total have you borrowed to help you with postsecondary education?

$_____ [IF NONE, ENTER 99999.97, FILL IN C.10.b THROUGH C.11 AS "NA", AND GO TO C.12]

b. Do you still owe money on these loans for your postsecondary education?

(1) YES. (GO TO 10.c.)
(2) NO. (FILL IN 10.c THROUGH C.11 AS "NA" AND GO TO C.12.)

c. How much do you currently owe? $_____

d. When are you (or were you) scheduled to start payment on your loan(s) (the first one due if more than one)?
MONTH __ __
YEAR 19 __ __

e. [ASK ONLY IF PAYMENT DATE IS CURRENT MONTH OF 1992 OR EARLIER; OTHERWISE FILL IN WITH "97."]
Have you started repaying your loan?
(1) YES.
(2) NO.

11. In order to have a portion of this debt forgiven, would you be willing to do any of the following? (1) YES, (2) NO.
a. Teach or perform other public service work in a depressed area of the U.S., such as a rural area or inner city?
b. Enter national service such as Conservation Corps, Peace Corps, or VISTA?
c. Enter the military?

12. (IF NPSAS DEPENDENCY STATUS IS AVAILABLE, ASK 12.a; OTHERWISE START WITH 12.b)
a. You previously told us you [were (IF NPSAS DEPENDENCY STATUS = 1)/were not (IF NPSAS DEPENDENCY = 2)] listed as a dependent on your parent's income tax return for 1989. Is that correct?
(1) YES (IF NPSAS DEPENDENCY STATUS = 1, FILL IN C.12.b AS "YES" AND GO TO C.12.c. IF NPSAS DEPENDENCY STATUS=2, FILL IN C.12.b, c and d AS "NO", AND GO TO SECTION D.)
(2) NO (GO TO C.12.b)

b. Were you listed as a dependent on your parent's income tax return for 1989?
(1) YES (CONTINUE WITH C.12.c)
(2) NO (FILL IN 12.c AND 12.d AS "NO" AND GO TO SECTION D)

c. Were you listed as a dependent on your parents' income tax return for 1990?
(1) YES (CONTINUE WITH C.12.d.)
(2) NO (FILL IN 12.d AS "NO," AND GO TO SECTION D.)

d. For 1991?
(1) YES.
(2) NO.

D. Work Experiences (TIME STAMP ON SECTION D START SCREEN)

The next few questions concern any jobs you may have held (for pay) during or since February of 1990. This includes jobs that you started before that time, but you were still employed in during or after February 1990. If you left a job and sometime later went back to the same job, please count that as two jobs for purposes of these questions. We want you to consider any job you held for pay, including summer jobs, work-study jobs, apprenticeships, and co-ops.

1. Have you held any job for pay at any time (including co-ops, work study, summer jobs, part-time jobs, National Guard, or military reserve), either full-time or part-time, since February 1990?
a. YES. (GO TO D.2.)
b. NO. (SECTION D COMPLETE, GO TO SECTION E.)

2. [LIMIT OF 6 JOBS. JOBS SHOULD BE SORTED BY START MONTH/YEAR AFTER EACH ENTRY. ALSO FLAG SHOULD BE SET WHEN 1ST REACHING THIS SCREEN TO AVOID A REPEAT, SHOULD BACKTRACK BE REQUIRED.]

For each job you held since February 1990, please tell me

a. Who was your employer?
b. What month and year did you start this job?
c. What month and year did you end this job?
d. Was the job full-time or part-time?

[NOTE TO INTERVIEWER: PART-TIME IS LESS THAN 35 HOURS PER WEEK.]

[NOTE TO INTERVIEWER: IF STILL IN JOB FILL IN END MONTH AND YEAR AS "97".]

Job	Company	Start Month	Start Year	End Month	End Year	Full-time/ Part-Time	
1	_____	__ __	19__ __	__ __	19__ __	F	P
2	_____	__ __	19__ __	__ __	19__ __	F	P
3	_____	__ __	19__ __	__ __	19__ __	F	P
4	_____	__ __	19__ __	__ __	19__ __	F	P
5	_____	__ __	19__ __	__ __	19__ __	F	P
6	_____	__ __	19__ __	__ __	19__ __	F	P

[PROGRAM TO ALLOW CORRECTION OF COMPANY NAME START AND END DATES AND ALLOW A DELETION CODE FOR JOBS LISTED INAPPROPRIATELY. VERIFY ENTIRE SCREEN WITH RESPONDENT BEFORE EXITING.]

3. (IF EMPLOYED AT ANY TIME PRIOR TO END OF LAST ENROLLMENT PERIOD, ASK THIS QUESTION; OTHERWISE FILL IN D.3 AS "NA" AND GO TO D.8.]

Since you were employed at sometime during the time period that you [have been, IF STILL ENROLLED/were, IF NOT STILL ENROLLED] going to school/college, how did you view your primary role in postsecondary education? (READ ALL CHOICES.)

1 = STUDENT WHO WORKS TO HELP PAY EXPENSES WHILE IN SCHOOL/COLLEGE.
2 = STUDENT WHO WORKS TO EARN EXTRA SPENDING MONEY WHILE IN SCHOOL/COLLEGE.
3 = AN EMPLOYEE WHO ATTENDS SCHOOL/COLLEGE TO GAIN SKILLS NECESSARY FOR JOB ADVANCEMENT.
4 = AN EMPLOYEE WHO ATTENDS SCHOOL TO EXPAND NEW CAREER POSSIBILITIES.
5 = AN EMPLOYEE WHO ATTENDS SCHOOL TO EXPAND PERSONAL KNOWLEDGE/SKILLS.

[NOTE TO INTERVIEWER: FORCE A CHOICE TO D.3. DO NOT ACCEPT "DK" AS AN ANSWER.]

[IF RESPONSE TO D.3 WAS "1" OR "2", REPEAT D.4 THROUGH D.7 FOR EACH JOB LISTED IN D.2 THAT WAS HELD AT ANY TIME BEFORE LAST ENROLLMENT PERIOD. FILL IN NUMBER OF JOB (FROM D.2) FOR EACH REPEAT SEGMENT. IF D.3 RESPONSE WAS "3", "4", OR "5", GO TO D.8.]

4. (TIME STAMP ON THIS SCREEN FOR EACH REPEAT)

Was the job with [FILL IN EMPLOYER NAME FROM D.2] between [FILL IN START DATE] and [FILL IN END DATE] a "co-op" job or paid internship/apprenticeship associated with an educational program you were enrolled in at the time?

1 = YES.
2 = NO.

5. How closely was this job with [FILL IN EMPLOYER NAME FROM D.2] related to your planned area of study at that time?
1 = CLOSELY RELATED.
2 = SOMEWHAT RELATED.
3 = NOT RELATED.

6. Was this job with [FILL IN EMPLOYER NAME FROM D.2] on-campus or off-campus?
1 = ON-CAMPUS.
2 = OFF-CAMPUS.

7. In a typical week on this job with [FILL IN EMPLOYER NAME FROM D.2] how many hours did you work?

_____
Number of Hours

[IF ADDITIONAL APPLICABLE JOBS, REPEAT D.4 THROUGH D.7 FOR NEXT APPLICABLE JOB. OTHERWISE, GO TO D.8, IF RESPONDENT NOT CURRENTLY ENROLLED IN SCHOOL AND HAS HELD JOB SINCE LAST ENROLLMENT PERIOD; OTHERWISE, SET ALL Q8 APPLICABILITY INDICATORS (SEE BELOW) TO "INAPPLICABLE" AND GO TO D.17.]

8. [TIME STAMP ON THIS SCREEN FOR EACH APPLICABLE REPEAT (IF ANY)]

[QUESTIONS D.8 THROUGH D.16 ARE REPEATED FOR PRINCIPAL JOBS HELD IN 1990 AND 1991. COMPUTE AN APPLICABILITY INDICATOR FOR EACH JOB. IF RESPONSE TO D.3 WAS 3, 4, OR 5, THEN ALL JOBS LISTED IN D.2 ARE APPLICABLE. IF RESPONSE WAS NA, 1, OR 2 TO D.3, ONLY JOBS HELD SINCE LAST ENROLLMENT PERIOD ARE APPLICABLE. IF NO APPLICABLE JOBS, GO TO D.17. FILL IN ALL NONAPPLICABLE REPEATS WITH "NA" CODES. STORE APPROPRIATE JOB NUMBER (FROM D.2 OR 8.b BELOW) AS PART OF EACH REPEAT. ASK 8.a IF ONLY ONE "APPLICABLE" JOB DURING YEAR UNDER CONSIDERATION; ASK 8.b AND c IF TWO OR MORE JOBS DURING YEAR UNDER CONSIDERATION.]

a. We would like to ask a few questions about your job with [FILL IN EMPLOYER'S NAME FROM D.2] during [FILL IN APPROPRIATE YEAR]. (GO TO D.9)

b. In [FILL IN APPROPRIATE YEAR], you indicated that you worked for more than one employer. Which of these do you consider to be your principal job during that year?
1.
2.
3. [PROGRAM FILLS IN NUMBERS AND
4. { EMPLOYERS FOR APPROPRIATE YEAR
5. [FROM D.2.
6.

[PROGRAM DOES NOT ACCEPT INPUT EXCEPT FOR APPLICABLE JOBS THAT ARE PRESENTED.]

c. We would like to ask you a few questions about this principal job with [FILL IN EMPLOYER FROM D.2] during [FILL IN APPROPRIATE YEAR].

9. a. What kind of business or industry was this (for example: hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)?

_____

b. Was this job mainly?
1) Manufacturing
2) Wholesale trade
3) Retail trade
4) Other (agriculture, construction, service, government, etc., but not military)
5) Military

10. a. What kind of job was this (for example, registered nurse, personnel manager, salesperson, waitress, gasoline engine assembler, or MOS if military)?

_____
(Fill in)

b. What were your most important duties (for example; patient care, directing hiring practices, supervising order clerks, assembling engines, operating grinding mill)?

_____
(Fill in)

11. (TIME STAMP IMMEDIATELY FOLLOWING EACH REPEAT OF THIS SCREEN)

What type of company or organization was this? (READ CHOICES)
1 = PRIVATE FOR-PROFIT.
2 = PRIVATE NOT-FOR-PROFIT OR NON-PROFIT.
3 = LOCAL GOVERNMENT.
4 = STATE GOVERNMENT.
5 = FEDERAL GOVERNMENT.
6 = SELF-EMPLOYED IN YOUR OWN BUSINESS, PROFESSIONAL PRACTICE, OR FARM (NOT INCORPORATED)
7 = SELF-EMPLOYED IN YOUR OWN BUSINESS, PROFESSIONAL PRACTICE OR FARM (INCORPORATED)
8 = OTHER. (SPECIFY) _____

[RESPONSES TO D.9 THROUGH D.11, TOGETHER WITH EMPLOYER NAME, TO BE CODED ON LINE INTO STANDARD INDUSTRY AND OCCUPATION CODES.]

12. (TIME STAMP ON THIS SCREEN)
How satisfied were you with this job?
1 = SATISFIED.
2 = NEUTRAL OR NO OPINION.
3 = DISSATISFIED.

13. During [FILL IN APPROPRIATE YEAR], did you participate in any employer-provided education/training programs while in this job with [FILL IN EMPLOYER NAME]. (Other than what you have mentioned so far)
1 = YES. (GO TO D.14)
2 = NO. ([FILL IN D.14 THROUGH D.16 OF THIS REPEAT AS "NA". THEN, IF THIS IS THE LAST REPEAT OF D.8-D.16, GO TO D.17; OTHERWISE, GO TO D.8 FOR ADDITIONAL REPEAT.)

14. Were any of these programs (READ CHOICES AND ENTER YES OR NO TO EACH; 1 = "YES"; 2 = "NO")

a. FORMAL REGISTERED APPRENTICESHIP, SPONSORED BY THE STATE OR A LABOR UNION?
b. EMPLOYER-PROVIDED JOB TRAINING DURING WORKING HOURS?

15. On the average, (for all training in this job) how many hours per week did you spend?
a. Being instructed by a teacher? _____ (hours/week) [97 = NONE]
b. Outside reading/homework/practice/lab work_____ (hours/week). [97 = NONE]

16. a. What was the length of all programs for this job in [FILL IN APPROPRIATE YEAR]?
[ENTER NUMBER _____ [97 = "FOR AS LONG AS EMPLOYED"]

b. (IF D.16.a = 97, FILL IN A 97 FOR THIS RESPONSE, OTHERWISE INTERVIEWER ASKS OR SPECIFIES WHETHER THE D.19.a NUMBER IS IN:)
1 = DAYS
2 = WEEKS
3 = MONTHS

[IF THIS IS THE LAST REPEAT OF D.8-D.16, GO TO D.17; OTHERWISE, GO TO D.8 FOR ADDITIONAL REPEAT]

[REPEAT D.17 FOR ALL APPLICABLE NON-EMPLOYMENT PERIODS (LIMIT 6)]

17. (ASK QUESTION ONLY IF THERE ARE ANY APPLICABLE PERIODS OF UNEMPLOYMENT. UNEMPLOYMENT PERIODS SHOW A ONE MONTH OR MORE SKIP BETWEEN END OF EMPLOYMENT PERIOD AND BEGINNING OF THE NEXT EMPLOYMENT PERIOD (OR CURRENT DATE IF NOT CURRENTLY EMPLOYED); E.G., END OF EMPLOYMENT IN JUNE, 1990 AND BEGINNING OF NEXT EMPLOYMENT IN AUGUST, 1990 OR LATER. UNEMPLOYMENT PERIODS ARE NOT APPLICABLE IF THEY OCCUR WHILE RESPONDENT IS ENROLLED IN SCHOOL OR IF THEY OCCUR IN THE SUMMER BETWEEN TWO TERMS OF EDUCATION.) (TIME STAMP ON EACH REPEAT OF THIS SCREEN)

For the period from (month and year of beginning and ending of first applicable non-employment period), you reported not being employed and not in school. During that period:

a. Did you receive unemployment insurance?
(1) YES.
(2) NO.

b. Were you looking for work?
(1) YES. (GO TO 17.c.)
(2) NO. (FILL IN 17.c WITH 97; THEN IF THIS IS LAST REPEAT OF D.17, GO TO SECTION E; OTHERWISE, GO BACK TO SCREEN STARTING D.17 FOR ADDITIONAL REPEAT.)

c. How many hours per week did you spend, on the average, looking for work?
_____ HOURS

[IF THIS IS LAST REPEAT OF D.17, GO TO SECTION E; OTHERWISE, GO BACK TO SCREEN STARTING D.17 FOR ADDITIONAL REPEAT.]

E. **Other Education or Training**

The next few questions are about your participation in education programs other than the ones we have already discussed.

(TIME STAMP ON SCREEN STARTING SECTION E)

1. **Other than postsecondary education for credit, education/training provided by your employer, and military training, we would like to find out about your participation in other programs such as registered apprenticeships, government training programs, personal enrichment, or correspondence courses. Since February 1990, have you participated in any of the following? Please report any specific course or program in only one category. (READ CHOICES) (1) YES, (2) NO.**

   a. Non-credit courses or activities in a regular school or college
   b. Correspondence courses
   c. Courses given by a community group, labor organization, or church
   d. Courses or instruction from a private company or instructor
   e. Courses by television, radio, or newspaper
   f. Programs or courses sponsored by federal, state, or local government

2. **[IF NO RESPONSE TO E.1.a-f WAS "YES", THEN FILL IN E.1.a.1 THROUGH E.1.f.4 AS "97" AND GO TO SECTION F; OTHERWISE ASK APPROPRIATE PARTS TO THIS QUESTION.]**

   a.1 **[IF RESPONSE TO E.1.a WAS "YES", ASK QUESTION; OTHERWISE FILL IN E.2.a.1 THROUGH E.2.a.4 AS "97" AND GO TO E.2.b.1]**
   Were any of the non-credit college courses/activities job related?
   (1) YES
   (2) NO (FILL IN 2.a.2 THROUGH 2.a.4 AS "NA", AND GO TO 2.b.1)

   [NOTE TO INTERVIEWER: JOB RELATED MEANS REQUIRED BY, OR USEFUL IN, JOB HELD AT THE TIME OF THE COURSE OR JOB INDIVIDUAL WAS SEEKING TO GAIN AT THE TIME OF THE COURSE.]

   a.2 **Did you complete any job-related non-credit courses/activities?**
   (1) YES
   (2) NO

   a.3 **Are you still enrolled in any job-related, non-credit courses/activities?**
   (1) YES
   (2) NO

   a.4 **Were any of the non-credit courses/activities required by your employerr or prospective employer at the time you took the course (participated in the activity)?**
   (1) YES, ALL WERE REQUIRED
   (2) YES, SOME WERE REQUIRED
   (3) NO, NONE WERE REQUIRED

   [NOTE TO INTERVIEWER: IF RESPONDENT ANSWERS "YES," THEN ASK IF ALL OR ONLY SOME COURSES/ACTIVITIES WERE REQUIRED. IF RESPONDENT PARTICIPATED IN ONLY ONE COURSE/ACTIVITY AND SAYS "YES," THEN "ALL" WERE REQUIRED.]

   b.1 **[IF RESPONSE TO E.1.b WAS "YES", ASK QUESTION; OTHERWISE FILL IN E.2.b.1 THROUGH E.2.b.4 AS "97" AND GO TO E.2.c.1]**
   Were any of the correspondence courses job related?
   (1) YES
   (2) NO (FILL IN 2.b.2 THROUGH 2.b.4 AS "NA", AND GO TO 2.c.1)

[NOTE TO INTERVIEWER: JOB RELATED MEANS REQUIRED BY, OR USEFUL IN, JOB HELD AT THE TIME OF THE COURSE OR JOB INDIVIDUAL WAS SEEKING TO GAIN AT THE TIME OF THE COURSE.]

b.2 Did you complete any job-related correspondence courses?
(1) YES
(2) NO

b.3 Are you still taking any job-related correspondence courses?
(1) YES
(2) NO

b.4 Were any of the correspondence courses required by your employerr or prospective employer at the time you took the course?
(1) YES, ALL WERE REQUIRED
(2) YES, SOME WERE REQUIRED
(3) NO, NONE WERE REQUIRED

[NOTE TO INTERVIEWER: IF RESPONDENT ANSWERS "YES," THEN ASK IF ALL OR ONLY SOME COURSES WERE REQUIRED. IF RESPONDENT PARTICIPATED IN ONLY ONE COURSE AND SAYS "YES," THEN "ALL" WERE REQUIRED.]

c.1 [IF RESPONSE TO E.1.c WAS "YES", ASK QUESTION; OTHERWISE FILL IN E.2.c.1 THROUGH E.2.c.4 AS "97" AND GO TO E.2.d.1]
Were any of the courses given by community groups, churches, or labor unions job related?
(1) YES
(2) NO (FILL IN 2.c.2 THROUGH 2.c.4 AS "NA", AND GO TO 2.d.1)

[NOTE TO INTERVIEWER: JOB RELATED MEANS REQUIRED BY, OR USEFUL IN, JOB HELD AT THE TIME OF THE COURSE OR JOB INDIVIDUAL WAS SEEKING TO GAIN AT THE TIME OF THE COURSE.]

c.2 Did you complete any job-related courses given by community groups, churches, or labor unions?
(1) YES
(2) NO

c.3 Are you still taking any job-related courses from community groups, churches, or labor unions?
(1) YES
(2) NO

c.4 Were any of the courses from community groups, churches, or labor unions required by your employerr or prospective employer at the time you took the course?
(1) YES, ALL WERE REQUIRED
(2) YES, SOME WERE REQUIRED
(3) NO, NONE WERE REQUIRED

[NOTE TO INTERVIEWER: IF RESPONDENT ANSWERS "YES," THEN ASK IF ALL OR ONLY SOME COURSES WERE REQUIRED. IF RESPONDENT PARTICIPATED IN ONLY ONE COURSE AND SAYS "YES," THEN "ALL" WERE REQUIRED.]

d.1 [IF RESPONSE TO E.1.d WAS "YES", ASK QUESTION; OTHERWISE FILL IN E.2.d.1 THROUGH E.2.d.4 AS "97" AND GO TO E.2.e.1]
Were any of the courses from a private company or instructor job related?
(1) YES
(2) NO (FILL IN 2.d.2 THROUGH 2.d.4 AS "NA," AND GO TO 2.e.1)

[NOTE TO INTERVIEWER: JOB RELATED MEANS REQUIRED BY, OR USEFUL IN, JOB HELD AT THE TIME OF THE COURSE OR JOB INDIVIDUAL WAS SEEKING TO GAIN AT THE TIME OF THE COURSE.]

d.2 Did you complete any job-related courses from a private company or instructor?
(1) YES
(2) NO

d.3 Are you still taking any job-related courses from a private company or instructor?
(1) YES
(2) NO

d.4 Were any of the courses from private companies or instructors required by your employerr or prospective employer at the time you took the course?
(1) YES, ALL WERE REQUIRED
(2) YES, SOME WERE REQUIRED
(3) NO, NONE WERE REQUIRED

[NOTE TO INTERVIEWER: IF RESPONDENT ANSWERS "YES," THEN ASK IF ALL OR ONLY SOME COURSES WERE REQUIRED. IF RESPONDENT PARTICIPATED IN ONLY ONE COURSE AND SAYS "YES," THEN "ALL" WERE REQUIRED.]

e.1 [IF RESPONSE TO E.1.e WAS "YES", ASK QUESTION; OTHERWISE FILL IN E.2.e.1 THROUGH E.2.e.4 AS "97" AND GO TO E.2.f.1]
Were any of the radio, television, or newspaper courses job related?
(1) YES
(2) NO (FILL IN 2.e.2 THROUGH 2.e.4 AS "NA," AND GO TO 2.f.1)

[NOTE TO INTERVIEWER: JOB RELATED MEANS REQUIRED BY, OR USEFUL IN, JOB HELD AT THE TIME OF THE COURSE OR JOB INDIVIDUAL WAS SEEKING TO GAIN AT THE TIME OF THE COURSE.]

e.2 Did you complete any job-related radio, television, or newspaper courses?
(1) YES
(2) NO

e.3 Are you still taking any job-related radio, television, or newspaper courses?
(1) YES
(2) NO

e.4 Were any of the television, newspaper, or radio courses required by your employerr or prospective employer at the time you took the course?
(1) YES, ALL WERE REQUIRED
(2) YES, SOME WERE REQUIRED
(3) NO, NONE WERE REQUIRED

[NOTE TO INTERVIEWER: IF RESPONDENT ANSWERS "YES," THEN ASK IF ALL OR ONLY SOME COURSES WERE REQUIRED. IF RESPONDENT PARTICIPATED IN ONLY ONE COURSE AND SAYS "YES," THEN "ALL" WERE REQUIRED.]

f.1 [IF RESPONSE TO E.1.f WAS "YES", ASK QUESTION; OTHERWISE FILL IN E.2.f.1 THROUGH E.2.f.4 AS "97" AND GO TO SECTION F.]
Were any of the programs or courses sponsored by federal, state, or local government job related?
(1) YES
(2) NO (FILL IN 2.f.2 THROUGH 2.f.4 AS "NA", AND GO TO SECTION F)

[NOTE TO INTERVIEWER: JOB RELATED MEANS REQUIRED BY, OR USEFUL IN, JOB HELD AT THE TIME OF THE COURSE OR JOB INDIVIDUAL WAS SEEKING TO GAIN AT THE TIME OF THE COURSE.]

f.2 Did you complete any job-related government-sponsored programs or ocurses?
(1) YES
(2) NO

f.3 Are you still enrolled in any job-related government-sponsored programs or courses?
(1) YES
(2) NO

f.4 Were any of the Federal-, state-, or local-government-sponsored programs or courses required by your employerr or prospective employer at the time you took the course?
(1) YES, ALL WERE REQUIRED
(2) YES, SOME WERE REQUIRED
(3) NO, NONE WERE REQUIRED

[NOTE TO INTERVIEWER: IF RESPONDENT ANSWERS "YES," THEN ASK IF ALL OR ONLY SOME COURSES/PROGRAMS WERE REQUIRED. IF RESPONDENT PARTICIPATED IN ONLY ONE COURSE/PROGRAM AND SAYS "YES," THEN "ALL" WERE REQUIRED.]

F. Demographic Information (TIME STAMP ON START PAGE FOR SECTION F)
The next few general questions are about you and your living arrangements.

1. Where did you live in the first week of February 1992? (READ CHOICES AS NECESSARY)
1 = IN SCHOOL-PROVIDED HOUSING.
2 = IN SORORITY/FRATERNITY HOUSE.
3 = IN OWN APARTMENT OR HOUSE (NOT PARENTS' HOUSE).
4 = IN EMPLOYER-PROVIDED HOUSING
5 = IN PARENTS' OR GUARDIANS' HOUSE OR APARTMENT
6 = IN OTHER RELATIVES' (OTHER THAN PARENTS, SPOUSE, OR CHILDREN) HOUSE OR APARTMENT.
7 = OTHER.

2. [IF RESPONSE TO F.1 WAS 5 OR 6, PROGRAM FILLS IN THIS RESPONSE AS "2" AND BRANCHES DIRECTLY TO F.2.b.]

a. Did you live alone or with others at that time?
(1) ALONE. (FILL IN ALL RESPONSES TO F.2.b AS "NO", FILL IN F.2B5_N THROUGH F2B10_N WITH 97, FILL IN HOUSEHOLD SIZE AS ZERO, FILL IN F.2.c AS "YES", AND GO TO F.3.)
(2) WITH OTHERS (GO TO 2.b.)

b. Which of the following individuals lived with you during that time? Please include everyone who lived in the household with you. (READ CHOICES AND RECORD "YES" OR "NO" TO EACH)
[IF RESPONSE TO F.1 IS 1, PROGRAM FILLS IN "NO" TO OPTIONS 1-6 AND 9 AND DOES NOT PRESENT THEM TO INTERVIEWER. IF RESPONSE TO F.1 IS 2, PROGRAM FILLS IN "NO" TO OPTIONS 1-9 AND DOES NOT PRESENT THEM TO INTERVIEWER.]

[NOTE TO INTERVIEWERS: SOME FILL INS OF ANSWERS TO THIS QUESTION HAVE BEEN MADE, BASED ON PREVIOUS RESPONSES. DO NOT ASK QUESTIONS ALREADY FILLED IN, BUT YOU SHOULD STILL USE YOUR JUDGEMENT IN ASKING OTHER OPTIONS. AS EXAMPLES IF STUDENT HAS INDICATED LIVING IN "DORMITORY" (WHICH IS SCHOOL-PROVIDED HOUSING) TO F.1, IT SEEMS REASONABLE TO ASSUME THAT NO WIFE, CHILDREN, OR OTHER RELATIVES LIVE WITH STUDENT. ON THE OTHER HAND, IF STUDENT SIMPLY RESPONDED "SCHOOL-PROVIDED HOUSING," THAT COULD INCLUDE MARRIED STUDENT HOUSING AND WIFE, CHILD, ETC. COULD LIVE WITH STUDENT.]

(1) FATHER. (IF "YES", FILL IN F.1.b.2 AS "NO" AND GO TO F.1.b.3.)
(2) OTHER MALE GUARDIAN.
(3) MOTHER. (IF "YES", FILL IN F.1.b.4 AS "NO" AND GO TO F.1.b.5.)
(4) OTHER FEMALE GUARDIAN.
(5) BROTHERS OR SISTERS.
(6) GRANDPARENTS.
(7) HUSBAND OR WIFE.
(8) YOUR OWN CHILDREN.
(9) OTHER RELATIVES.
(10) OTHER, NON-FAMILY FRIENDS.

F2B5_N. (IF F2B5 = YES) How many brothers and sisters were living with you?
_____ (IF F2B5 ≠ YES; PROGRAM FILLS IN 97]

F2B6_N. (IF F2B6 = YES) How many grandparents were living with you?
_____ (IF F2B6 ≠ YES; PROGRAM FILLS IN 97]

F2B8_N. (IF F2B8 = YES) How many of your children were living with you?
_____ (IF F2B8 ≠ YES; PROGRAM FILLS IN 97]

F2B9_N. (IF F2B9 = YES) How many "other relatives" were living with you?
_____ (IF F2B9 ≠ YES; PROGRAM FILLS IN 97]

F2B10_N. (IF F2B10 = YES) How many "other non-family, friends" were living with you? {IF LIVING IN DORM OR FRATERNITY/SORORITY HOUSE, COUNT ONLY ROOMMATES, NOT ENTIRE DORM OR HOUSE.] _____ (IF F2B10 ≠ YES; PROGRAM FILLS IN 97]

c. [PROGRAM DETERMINES HOUSEHOLD SIZE FROM RESPONSES TO F.2.b AND F2B5_N THROUGH F2B10_N.]
You have indicated that the total number of people you lived with during the first week of February 1992 (not counting yourself) was (program fills in computed household size). Is that correct?

(1) YES (GO TO F.3)
(2) NO (FLASH MESSAGE TO INTERVIEWER TO CORRECT DISCREPANCIES IN F.2.b, F2B5_N_ THROUGH F2B10_N, AND RECYCLE THROUGH THIS QUESTION UNTIL HOUSEHOLD SIZE IS CONFIRMED.)

3. [IF RESPONSE TO F.2.b.7 WAS "YES," FILL IN F.3.a AS 3 AND GO TO F.3.b; OTHERWISE, ASK F.2.b.]

a. As of the first week of February 1992, what was your marital status?

(1) Single, never married? (Go to F.5.)
(2) Single, but living as married? (Go to F.4.)
(3) Married? (Go to 3.b.)
(4) Separated? (Go to 3.b.)
(5) Divorced? (Go to 3.b.)
(6) Widowed? (Go to 3.b.)

b. When did your [previous (IF F.3.a>3)] marriage begin?

__ __ __ __
month year

(IF RESPONSE TO 3.a WAS (3), SKIP TO F.4)

c. When did you last live with your [FORMER (IF 97 > F.3.a > 4)] spouse?
__ __ __ __ (GO TO F.5)
month year

4. Which of the following was your [spouse (IF F.3.a=3)/partner (IF F.3.a=2)] doing the first week of February 1992: (1) YES (2) NO

a. Working for pay at a full-time job. (IF "YES", FILL IN 4.b-e AS "NO" AND GO TO 4.f.)
b. Working for pay at a part-time job. (IF "YES", FILL IN 4.c-e AS "NO" AND GO TO 4.f.)
c. Holding a job, but on temporary layoff from work, or waiting to report to work. (IF "YES", FILL IN 4.d-e AS "NO" AND GO TO 4.f.)
d. Unemployed, looking for work. (IF "YES", FILL IN 4.e AS "NO" AND GO TO 4.f.)
e. Keeping house; without, and not looking for, outside job for pay.
f. Taking courses at a graduate or professional school (such as law, medicine, dentistry). (IF "YES", FILL IN 4.g-i AS "NO" AND GO TO 4.j.)
g. Primarily taking academic courses at a 2- or 4-year college. (IF "YES", FILL IN 4.h-i AS "NO" AND GO TO 4.j.)
h. Primarily taking vocational or technical courses at any kind of school or college. (IF "YES", FILL IN 4.i AS "NO" AND GO TO 4.j.)
i Taking a break from school.
j. Serving on <u>active duty</u> in the Armed Services, Reserves, or National Guard. (IF "YES", FILL IN 4.k AS "NO" AND GO TO F.5.)
k. Training in an apprenticeship program or in a government job training program.

5. [IF F.2.b.8 RESPONSE WAS "YES," FILL IN F.5.a AS "YES" AND GO TO F.5.b; OTHERWISE, ASK F.5.a.]

a. As of the first week in February, 1992, did you have any children, <u>including adopted and stepchildren</u>?

(1) YES.
(2) NO. (FILL IN 5.b WITH 97, FILL IN F.5.c AND F.5.d RESPONSES AS 97 AND GO TO F.6.)

b. How many children did you have [as of the first week in February, including adopted and stepchildren (IF F.2.b.8 = YES)]? _____

c. When was your [first (IF 97 >F.5.b > 1)] child's birthdate?

__ __ __ __
month year

(IF [F.5.b] = 1, FILL IN F.5.d RESPONSES AS 97 AND GO TO F.6; IF (97 ≠ > F.5.b > 1) ASK F.5.d)

d. When was your last child's birthdate? _ _ _ _
month year

6. a. Do you have any functional limitations, disabilities, or handicaps? (IF NEEDED, USE CATEGORIES IN F.6.b AS PROMPTS)
(1) YES. (GO TO 6.b.)
(2) NO. (FILL IN F.6.b.1-7 AS "NO", AND GO TO SECTION G.)

b. What functional limitations or disabilities do you have? (READ CHOICES AND RECORD "YES" OR "NO" TO EACH)

(1) HEARING IMPAIRED.
(2) SPEECH DISABILITY OR LIMITATION.
(3) ORTHOPEDIC LIMITATION.
(4) LEARNING DISABILITY.
(5) VISUAL IMPAIRMENT NOT CORRECTABLE WITH GLASSES, OR LEGALLY BLIND.
(6) OTHER HEALTH RELATED LIMITATION/DISABILITY.
(7) ANY OTHER DISABILITY.

[IF ALL RESPONSES ARE "NO", CHANGE 6.a RESPONSE TO "NO".]

G. Family Information (TIME STAMP ON SECTION G START SCREEN)
The next few questions are about your family and financial planning.

(IF RESPONSE TO ITEM F.3.a WAS NEITHER (2) NOR (3), SKIP TO QUESTION G.4; OTHERWISE START WITH QUESTION G.1)

1. You indicated previously that you were [(married(IF F.3.a=3)/living as married (F.3.a=2)]. (IF F.4.a OR F.4.b OR F.4.J WAS YES, CONTINUE WITH G.1.a; OTHERWISE GO TO G.2)

a. You also told us that your [spouse (IF F.3.a=3)/partner(IF F.3.a=2)] was working the first week of February this year. What kind of work was your [spouse (IF F.3.a=3)/partner (IF F.3.a=2)] doing (for example, registered nurse, personnel manager, salesperson, waitress, gasoline engine assembler, or MOS if in military)? [IF SPOUSE/PARTNER HAS MORE THAN ONE JOB, ASK ABOUT MAIN JOB]

_____
[RESPONSE CODED ON-LINE TO OCCUPATIONAL CODE]

b. What type of company/organization was this? (READ CHOICES AS NECESSARY.)

(1) PRIVATE FOR-PROFIT?
(2) PRIVATE NOT-FOR-PROFIT OR NON-PROFIT?
(3) LOCAL GOVERNMENT?
(4) STATE GOVERNMENT?
(5) FEDERAL GOVERNMENT?
(6) SELF-EMPLOYED IN OWN BUSINESS, PROFESSIONAL PRACTICE, OR FARM (NOT INCORPORATED)?
(7) SELF-EMPLOYED IN OWN BUSINESS, PROFESSIONAL PRACTICE, OR FARM (INCORPORATED)?
(8) OTHER. (SPECIFY)._____

2. What is the highest level of education completed by your [spouse (IF F.3.a=3)/partner (IF F.3.a=2)] (READ CHOICES AS NECESSARY)

HIGH SCHOOL ONLY

1 = DID NOT COMPLETE HIGH SCHOOL.
2 = COMPLETED HIGH SCHOOL OR EQUIVALENT.

POSTSECONDARY VOCATIONAL

3 = LESS THAN 1 YEAR OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL.
4 = 1 BUT LESS THAN 2 YEARS OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL.
5 = 2 YEARS OR MORE OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL.

POSTSECONDARY ACADEMIC

6 = LESS THAN 2 YEARS OF COLLEGE.
7 = 2 OR MORE YEARS OF COLLEGE (INCLUDING 2-YEAR DEGREE).
8 = COMPLETE BACHELOR'S DEGREE (4 OR 5 YEAR DEGREE).
9 = MASTER'S DEGREE OR EQUIVALENT.
10 = M.D., D.D.S., L.L.B., OR OTHER ADVANCED PROFESSIONAL DEGREE*
11 = DOCTORATE DEGREE (E.G., Ph.D., Ed.D., D.B.A)

*[THIS CATEGORY ALSO INCLUDES ADVANCED DEGREES (I.E., POST UNDERGRADUATE DEGREES), DENTISTRY, MEDICINE, CHIROPRACTIC, OPTOMETRY, OSTEOPATHY, PODIATRY, THEOLOGY, VETERINARY MEDICINE, AND LAW]

3. (IF F.4.f OR F.4.g OR F.4.h IS "YES", ASK THIS QUESTION; OTHERWISE FILL IN RESPONSE OF 1 = NONE AND GO TO G.4)
You told us earlier that your [spouse (IF F.3.a=3)/partner (IF F.3.a=2)] was enrolled in postsecondary education during the first week of February of this year (1992). In what type of program was your [spouse (IF F.3.a=3)/partner (IF F.3.a=2)] enrolled? (READ CHOICES AS NECESSARY)

[1. NONE--NOT PRESENTED AS OPTION TO INTERVIEWER]

a. IF RESPONSE TO F.4.h WAS YES, PRESENT THESE OPTIONS, THEN GO TO G.4]

2. LESS THAN 2-YEAR VOCATIONAL/TECHNICAL CERTIFICATE
3. LESS THAN 2-YEAR VOCATIONAL/TECHNICAL LICENSE
4. 2- OR 3-YEAR VOCATIONAL DEGREE OR DIPLOMA
5. 2- OR 3-YEAR ASSOCIATE'S DEGREE.

b. [IF RESPONSE TO F.4.g WAS YES, PRESENT THESE OPTIONS, THEN GO TO G.4]
5. 2- OR 3- YEAR ASSOCIATE'S DEGREE
6. 4- OR 5-YEAR BACHELOR'S DEGREE

c. [IF RESPONSE TO F.4.f WAS YES, PRESENT THESE OPTIONS THEN GO TO G.4.]
7. MASTER'S DEGREE OR EQUIVALENT
8. ADVANCED PROFESSIONAL DEGREE (E.G., MEDICINE, DENTISTRY, LAW, THEOLOGY)
9. DOCTORATE (E.G., Ph.D., Ed.D., D.B.A.)

4. a. What was your personal total gross income for 1991? This includes income from all sources such as wages and salaries, income from business or farm, Social Security, pension, dividends, interest, rental income, and other income. $_____ [999999.97 = NONE]

[IF 4.a < 999999.97, ASK QUESTION 4.b; OTHERWISE, FILL IN 4.b WITH APPROPRIATE NONRESPONSE INDICATOR, FILL IN 4.c WITH RESPONSE TO 4.a, AND GO TO G.5]

b. Was all of your income for 1991 earned (i.e., wages, salaries, commissions, and other payments for your work)?
(1) YES (FILL IN G.4.c WITH RESPONSE TO G.4.a)
(2) NO (GO TO G.4.c.)

c. How much of your 1991 income, of (FILL IN FROM 4.a.), was earned?

$_____

[NOTE: IF 4.c > 4.a, FLASH PROMPT SCREEN INDICATING DISCREPANCY AND INSTRUCTING INTERVIEWER TO RESOLVE IT.]

5. a. What was your personal total gross income for 1990? This includes income from all sources such as wages and salaries, income from business or farm, social security, pension, dividends, interest, rental income, and other income.

$_____ [999999.97 = NONE]

[IF 5.a < 999999.97, ASK 5.b; OTHERWISE FILL IN 5.b WITH APPROPRIATE NONRESPONSE INDICATOR, FILL IN 5.c WITH RESPONSE TO 5.a, AND GO TO G.6]

b. Was all of your income for 1990 earned (i.e., wages, salaries, commissions, and other payment for your work)?
(A) YES (FILL IN G.5.c WITH RESPONSE TO G.5.a AND GO TO G.6)
(B) NO (GO TO G.5.c)

c. How much of your 1990 income, of (FILL IN FROM 5.a) was earned?

$_____

[NOTE: IF 5.c > 5.a, FLASH PROMPT SCREEN INDICATING DISCREPANCY AND INSTRUCTING INTERVIEWER TO RESOLVE IT.]

6. [IF C.12.d = YES, THEN ASK G.6; OTHERWISE PROGRAM FILLS IN WITH 999999.97 AND GO TO G.7]
What was your parent's total gross income in 1991? This includes income from all sources (wages, salaries, business/farm income, social security, pension, dividends, interest, rental income, child support, and other income).

$_____

7. [IF C.12.c = YES, THEN ASK G.7; OTHERWISE PROGRAM FILLS IN WITH 999999.97 AND GO TO G.8.]
What was your parent's total gross income in 1990? This includes income from all sources (wages, salaries, business/farm income, social security, pension, dividends, interest, rental income, child support, and other income).

$_____

8. [IF C.12.d = NO, THEN ASK G.8, OTHERWISE FILL IN 8.a AS "97" AND 8.b AS "999999.97"]
a. During 1991, did your principal household include any adults, other than you [but including your spouse or partner (IF F.3.a=2 OR 3)], who contributed to the household income? (Do not include sorority/fraternity sisters/brothers, college roommates, or other friends living with you.)
(1) YES. (GO TO 8.b.)
(2) NO. (FILL IN 8.b. WITH RESPONSE TO 4.a AND GO TO G.9)

b. What was the total household yearly gross income for 1991? This includes income from all sources such as wages and salaries, income from business or farm, Social Security, pensions, dividends, interest, rent, and other income.

$_____.

9. [IF C.12.c = NO, THEN ASK G.9; OTHERWISE FILL IN 9.a AS "97" AND 9.b AS "999999.97"]

a. During 1990, did your principal household include any adults, other than you (but including your spouse or partner IF F.3.a = 2 OR 3), who contributed to the household income? (Do not include sorority/fraternity sisters/brothers, college roommates, or other friends living with you at that time.)

(1) YES. (GO TO 9.b)
(2) NO. (FILL IN 9.b WITH RESPONSE TO 5.a AND GO TO G.10)

b. What was the total household yearly gross income for 1990? This includes income from all sources such as wages and salaries, income from business or farm, Social Security, pensions, dividends, interest, rent, and other income.

$_____.

10. a. Do you [and/or your spouse (IF F.3.a=3)/and/or your partner (IF F.3.a=2)] regularly put money into a savings account, savings bonds, retirement account, or other form of savings?

(1) YES. (GO TO 10.b.)
(2) NO. (GO TO G.11.)

b. How often do you [and/or your spouse (IF F.3.a=3)/and/or your partner (IF F.3.a=2)] put money into savings? (READ CHOICES AS NECESSARY)

(1) WEEKLY OR BIWEEKLY.
(2) MONTHLY.
(3) EVERY 2 OR 3 MONTHS.
(4) LESS OFTEN THAN EVERY 3 MONTHS BUT MORE OFTEN THAN ONCE A YEAR.
(5) ONCE A YEAR.
(6) LESS OFTEN THAN ONCE A YEAR.

11. Do you [and/or your spouse (IF F.3.a=3)/and/or your partner (IF F.3.a=2)] own:
(1) YES, (2) NO.

a. Your primary residence.
b. Another residence.
c. A car, truck, or other motor vehicle.
d. Investments such as stocks, bonds, rental property.
e. A farm or business.
f. Other major items (such as an RV, boat) costing more than $2,000.

12. IF ALL RESPONSE TO 11.a-f WERE NO, FILL IN 12.a-f AS 97 AND GO TO G.13; OTHERWISE ASK EACH APPLICABLE ITEM WHETHER PURCHASED IN LAST TWO YEARS.]

a. [IF 11.a = YES ASK QUESTION; OTHERWISE FILL IN ANSWER AS 97 AND GO TO 12.b.] Did you purchase your primary residence during the past two years?

(1) YES
(2) NO

b. [IF 11.b = YES, ASK QUESTION; OTHERWISE, FILL IN ANSWER AS 97 AND GO TO 12.c.] Did you purchase your other residence during the past two years?

(1) YES
(2) NO

c. [IF 11.c = YES, ASK QUESTION; OTHERWISE, FILL IN ANSWER AS 97 AND GO TO 12.d.] Did you purchase your car, truck, or other motor vehicle during the past two years?

(1) YES
(2) NO

d. [IF 11.d = YES, ASK QUESTION; OTHERWISE, FILL IN ANSWER AS 97 AND GO TO 12.e.] Did you purchase any of your investments in stock bonds, rental property, etc. during the past two years?
(1) YES
(2) NO

e. [IF 11.e = YES ASK QUESTION; OTHERWISE FILL IN ANSWER AS 97 AND GO TO 12.f.] Did you purchase your farm or business during the past two years?
(1) YES
(2) NO

f. [IF 11.f = YES, ASK QUESTION; OTHERWISE, FILL IN ANSWER AS 97 AND GO TO G.13.] Did you purchase any of your other major items during the past two years?
(1) YES
(2) NO

13. For how many people, beside yourself, do you have financial responsibility (e.g., spouse, children, parents, other family members, or other persons)? _____ PERSONS

14. For how many people, beside yourself, do you have caretaker or other time-commitment responsibilities (e.g., children, elderly people, family members, or others)? _____ PERSONS.

H. Goals, Aspirations, Expectations (Including Plans for Graduate School)

Now we would like to ask you some questions about your goals and expectations related to education and work. (TIME STAMP ON START SECTION H SCREEN)

1. Considering all practical constraints, what is the highest level of education you ever expect to complete? (READ CHOICES AS NECESSARY)

VOCATIONAL:
1 = LESS THAN 1 YEAR OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL.
2 = ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL.
3 = TWO YEARS OR MORE OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL.

ACADEMIC:
4 = LESS THAN 2 YEARS OF COLLEGE
5 = TWO OR MORE YEARS OF COLLEGE (INCLUDING 2-YEAR ASSOCIATE'S DEGREE).
6 = BACHELOR'S DEGREE (4 OR 5 YEAR DEGREE).
7 = MASTER'S DEGREE OR EQUIVALENT.
8 = M.D., D.D.S, L.L.B, OR OTHER ADVANCED PROFESSIONAL DEGREE.*
9 = DOCTORATE (E.G., Ph.D., Ed.D, D.B.A)

*[THIS CATEGORY ALSO INCLUDES ADVANCED DEGREES (I.E., POST UNDERGRADUATE DEGREES) IN DENTISTRY, MEDICINE, CHIROPRACTIC, OPTOMETRY, OSTEOPATHY, PODIATRY, THEOLOGY, VETERINARY MEDICINE, AND LAW.]

2. (IF EXPECTS TO ATTEND GRADUATE SCHOOL; I.E., RESPONSE TO H.1 WAS 7, 8, OR 9, ASK THIS QUESTION; OTHERWISE, SKIP TO H.9)

a. Have you applied or do you intend to apply for graduate school?
(1) YES, HAVE APPLIED. (GO TO H.2.b)
(2) YES, INTEND TO APPLY. (GO TO H.4.)

(3) NO. (GO TO H.9.)

b. To how many graduate schools, in total, have you applied?

_____
(Number of schools)

3. a. What is [the (IF H.2.b = 1)/your first choice [IF 99 > H.2.b > 1)] institution to which you applied?

Institution name: _____
City (Post Office): _____ State: _____

[NOTE TO INTERVIEWERS: CHECK WITH RESPONDENT IF NEEDED TO BE SURE OF SPELLING OF CITY. USE NO PUNCTUATION MARKS IN CITY NAME AND DO NOT ABBREVIATE; SEE SPECIAL INSTRUCTIONS. ALSO, PROBE RESPONDENT FOR CORRECT SCHOOL NAME; SOME WILL GIVE A SCHOOL WITHIN A UNIVERSITY RATHER THAN THE UNIVERSITY (E.G., FUQUA SCHOOL OF BUSINESS INSTEAD OF DUKE UNIVERSITY.)]

[USER EXIT AND SCREENS FOR VERIFICATION OF IPEDS CODE GO HERE]

IPEDS CODE FILL IN _____

b. Did you or will you apply for financial aid, including any kind of assistantship, at this institution?
(1) YES.
(2) NO.

4. When [did you (IF H.2.a. = 1)/will you (IF H.2.a = 2)] first apply to graduate school?

_ _ _ _
month year

5. When do you expect to enter graduate school? _ _ _ _
month year

6. For what field(s) of study did you or will you apply?
a. _____
b. _____
c. _____

[RESPONSE(S) TO BE CODED ON-LINE]

7. a. Have you taken any graduate education admissions or professional test, such as the GRE (Graduate Records Examination), Law School Admissions Test, or Medical College Admissions Test?
(1) YES. (GO TO 7.b.)
(2) NO. (GO TO H.8.)

b. Have you taken (1) YES (2) NO
(a) Graduate Record Exam (GRE)?
(b) Miller's Analogy Test (MAT)?
(c) Dental Admission Test (DAT)?
(d) Graduate Management Admissions Test (GMAT or ATGSB)?
(e) Law School Admissions Test (LSAT)?
(f) Medical College Admissions Test (MCAT)?

c. [ASK ONLY FOR TESTS TAKEN, AS IDENTIFIED IN 7.b. - FOR TESTS NOT TAKEN, PROGRAM FILLS IN "NA" CODE FOR MONTH AND YEAR]
When did you take

			Month	Year
a.	GRADUATE RECORD EXAM (GRE)	__ __	19__ __	
b.	MILLER'S ANALOGY TEST	__ __	19__ __	
c.	DENTAL ADMISSION TEST	__ __	19__ __	
d.	GRADUATE MANAGEMENT ADMISSIONS ADMISSIONS TEST (GMAT or ATGSB)?		__ __	19__ __
e.	LAW SCHOOL ADMISSIONS TEST (LSAT)		__ __	19__ __
f.	MEDICAL COLLEGE ADMISSIONS TEST (MCAT)		__ __	19__ __

8. What is the major reason you plan to attend graduate school?
[NOTE TO INTERVIEWERS: GIVE RESPONDENT A CHANCE TO ANSWER WITHOUT READING ALTERNATIVES, THEN TRY TO CLASSIFY RESPONSE AND VERIFY WITH RESPONDENT. READ CHOICES ONLY IF RESPONDENT HESITATES TO GIVE AN ANSWER. DO NOT USE "OTHER" CATEGORY IF RESPONSE FITS GENERALLY (OR PARTIALLY) INTO ONE OF THE 4 OTHERS.]

a. Need an advanced degree to obtain work in chosen field
b. To expand knowledge in chosen field
c. To expand knowledge generally
d. Uncertain about future plans and continuing education seems a good temporary solution
e. Other

9. The next few questions concern your employment plans. If you're not sure of the answer please give us your best estimate.

a. Five years from now (Spring, 1997), do you intend to be working either full-time or part-time?
(1) YES, FULL-TIME. (GO TO H.9.b.)
(2) YES, PART-TIME. (GO TO H.9.b)
(3) NO. (GO TO H.10)

b. What type of job or occupation (for example, salesperson, waitress, teacher, assembler) do you plan to have 5 years from now? If you're not sure, please provide your best estimate.

(RESPONSE TO BE CODED ON-LINE INTO OCCUPATION CODE.)

_____

10. How important is each of the following factors in determining the kind of work you plan to be doing for most of your life? Please rate each as: (1) not important, (2) somewhat important, or (3) very important. (CATI PROGRAM CREATES A RANDOM STARTING POINT BETWEEN a AND k, STORES THAT START POINT AS HRAND1, AND PRESENTS ALL RESPONSE CATEGORIES, IN ORDER FROM THAT POINT, WRAPPING AS NECESSARY.)

a. Previous work experience in the area.
b. Good income to start or within a few years.
c. Job security and permanence.
d. Work that seems important and interesting to you.
e. Freedom to make your own decisions.
f. Meeting and working with sociable people.
g. Having a job that has high status and prestige.
h. Having a job where most problems are quite difficult and challenging.
i. Having a job that allows you to establish roots in a community and not have to move from place to place.
j. Having a job that leaves a lot of time for other things in your life.
k. Having a job that allows a great deal of travel.

I. Public Service and Voting Experience (TIME STAMP ON START SECTION I SCREEN) The next few questions are about your experience in public affairs and public service.

1. a. Are you or have you ever been registered to vote?
   (1) YES, CURRENTLY REGISTERED. (GO TO 1.b.)
   (2) YES, BUT NOT CURRENTLY REGISTERED. (GO TO 1.b)
   (3) NO, NEVER REGISTERED. (GO TO 1.c.)
   (4) NO, NOT ELIGIBLE. (GO TO 1.c.)

   b. During the past two years (1990 and 1991), did you vote in any local or state elections?
   (1) YES.
   (2) NO.

   c. Do you expect to vote in the 1992 presidential election?
   (1) YES.
   (2) NO.

2. During the past two years (from the start of 1990 to present), have you performed volunteer or community service work (such as PTA, little league, scouts, service clubs, church groups, social action groups)?
   1 = YES. (GO TO I.3.)
   2 = NO. (GO TO I.6.)

3. Was any of this work: (1) YES (2) NO
   a. Strictly Voluntary?
   b. Court ordered?
   c. Required by membership in an organization, sorority, or fraternity.
   d. Required by one of your classes?

4. What types of community organizations were you involved with in this work? [Interviewer should probe for free-form response, determine appropriate category(s), and then verify likely categories with individual; ENTER YES FOR CATEGORIES VERIFIED AND NO FOR THOSE NOT MENTIONED/VERIFIED.]
   a. A YOUTH ORGANIZATION, SUCH AS LITTLE LEAGUE OR SCOUTS.
   b. SERVICE ORGANIZATIONS, SUCH AS ROTARY OR JUNIOR CHAMBER OF COMMERCE.
   c. POLITICAL CLUBS OR ORGANIZATIONS.
   d. CHURCH OR CHURCH-RELATED GROUPS (NOT COUNTING WORSHIP SERVICES).
   e. COMMUNITY CENTERS, NEIGHBORHOOD IMPROVEMENT, OR SOCIAL-ACTION ASSOCIATIONS OR GROUPS.
   f. ORGANIZED VOLUNTEER GROUP IN A HOSPITAL OR NURSING HOME.
   g. EDUCATIONAL ORGANIZATIONS SUCH AS PTA.
   h. OTHER.

5. Are you currently doing any volunteer or community service work?
   1 = YES.
   2 = NO.

6. Do you expect to perform any volunteer or community work during the next two years?

   (a) YES.
   (b) NO.

J. Locator information (TIME STAMP ON SECTION J, START SCREEN)

We're almost finished, but we will be getting in touch with you again in about two years to find out how your plans have worked out. These final questions are to help us keep in touch with you. This information will be kept strictly confidential, as we explained earlier.

1. **(IF NO PRIOR LOCATOR SOURCE DATA AVAILABLE, SKIP 1.a AND GO DIRECTLY TO 1.b.)**

   a. **You previously gave (name, address, and telephone number of locator person from existing record) as a person who would always know where to get in touch with you. Is this still correct?**
   - **(1) YES. (GO TO J.2.)**
   - **(2) NO. (CORRECT/COMPLETE EXISTING DATA AS APPROPRIATE, AND GO TO J.2.)**

   b. **Please tell me the name, address, and telephone number of a person other than your parent or guardian (preferably a relative) who lives at an address different from yours and who will always know where to get in touch with you. (FILL IN PARTIALS)**

   _____ ___ _____
   First Name MI Last Name

   _____
   Address

   _____ ___ _____
   City State Zip

   (___) _____
   Telephone Number

2. **(IF NO PRIOR RELATIONSHIP DATA, SKIP 2.a AND GO DIRECTLY TO 2.b.)**

   a. **You told us that this person is your (relationship from record). Is that correct?**
   - **(1) YES. (GO TO J.3.)**
   - **(2) NO. (CORRECT/COMPLETE EXISTING DATA AS APPROPRIATE AND GO TO J.3.)**

   b. **What is (NAME OF CONTACT PERSON)'s relationship to you?**
   - **(1) MOTHER/FEMALE GUARDIAN. (OVERWRITE NAME, ADDRESS, PHONE TO MOTHER INFORMATION IN J.4)**
   - **(2) FATHER/MALE GUARDIAN. (OVERWRITE NAME, ADDRESS, PHONE TO FATHER INFORMATION IN J.5)**
   - **(3) SISTER/BROTHER.**
   - **(4) SPOUSE OR FORMER SPOUSE**
   - **(5) OTHER RELATIVE, INCLUDING IN-LAWS.**
   - **(6) FRIEND.**

[IF PARENT INDICATOR [PARIND] IS "1", THEN GO TO J.4; OTHERWISE ASK J.3]

3. **[IF FULL PARENT NAME NOT PRELOADED, GO TO J.3.b; OTHERWISE ASK J.3.a.]**

   a. **You also gave (name) as the name of your parent(s) or guardian(s). Is this still correct?**
   - **(1) YES (GO TO J.3.c)**
   - **(2) NO (GO TO J.3.b)**

   b. **What is the name of your parent(s) or guardian(s)?**

   _____ ___ _____
   First name MI Last name

   c. **[DO NOT ASK THIS QUESTION, BUT FILL IN AS RESPONSE TO PREVIOUS QUESTIONS HAVE INDICATED. QUESTION MUST BE ANSWERED.]**
   - **(1) MOTHER DECEASED**

(2) FATHER DECEASED
(3) BOTH PARENTS DECEASED
(4) NO INDICATION OF PARENTS BEING DECEASED

[IF ANSWER IS 1, SET MOTHER DECEASED INDICATOR TO 1 AND CONTINUE. IF ANSWER IS 2, SET FATHER DECEASED INDICATOR TO 1 AND CONTINUE. IF BOTH DECEASED, SET BOTH INDICATORS TO 1 AND GO TO J.6.]

d. [ASK ONLY IF NOT OBVIOUS FROM PRELOAD OR RESPONSES, OTHERWISE VERIFY OR FILL IN DIRECTLY.]

Is this your
(1) MOTHER/FEMALE GUARDIAN
(2) FATHER/MALE GUARDIAN
(3) BOTH PARENTS/GUARDIANS

[IF ANSWER IS 1, FILL IN "MOTHER" FIELDS WITH PARENT PRELOAD DATA (NAME, ADDRESS, AND TELEPHONE NUMBER). IF ANSWER IS 2, FILL IN "FATHER" FIELDS WITH PARENT PRELOAD DATA. IF ANSWER IS 3, FILL IN BOTH MOTHER AND FATHER FIELDS WITH LAST NAME, ADDRESS, AND TELEPHONE NUMBER.]

4. [IF "MOTHER/FEMALE GUARDIAN" LISTED IN J.2. SKIP TO J.5. OTHERWISE, GO TO J.5 IF "MOTHER DECEASED CODE" = 1 OR TO J.4.a IF "MOTHER DECEASED CODE = 0]

a. We would like to [verify/obtain] information about your mother or female guardian; is she living and in sufficiently good health for us to contact her?
(1) YES. (GO TO J.4.b IF FULL NAME DATA AVAILABLE; GO TO J.4.c IF NOT)
(2) NO. (GO TO J.5)

b. We understand that your mother's/female guardian's full name is _____; is that correct?
(1) YES. (GO TO J.4.d)
(2) NO. (CORRECT/COMPLETE EXISTING DATA AND GO TO J.4.d)

c. What is your mother's/female guardian's full name? [PROGRAM FILLS IN PARTIALS]

_____ ___ _____
First Name MI Last Name

d. (IF J.2 IS "FATHER/MALE GUARDIAN" AND "FATHER DECEASED CODE" NOT EQUAL TO 1, THEN ASK THIS QUESTION; OTHERWISE, GO TO J.4.e. IF MOTHER'S ADDRESS DATA EXISTS OR TO J.4.f. IF NOT) Is the address for your mother/female guardian the same as that you just gave me for your father/male guardian?
(1) YES. (CATI PROGRAM FILLS IN DATA FROM J.1; THEN GO TO J.6)
(2) NO. (IF MOTHER'S/FEMALE GUARDIAN'S ADDRESS/PHONE NUMBER FILLED IN, GO TO J.4.e; IF DATA NOT AVAILABLE, GO TO J.4.f)

e. We show your mother's/female guardian's address and telephone number is (FROM PRELOADED DATA). Is this still correct?
(1) YES. (GO TO J.5)
(2) NO. (CORRECT/COMPLETE EXISTING DATA AND THEN GO TO J.5)

f. What is your mother's/female guardian's address and telephone number

_____
Address

_____ ___ _____
City State Zip
(___) _____

Telephone Number

5. [IF "FATHER/MALE GUARDIAN" LISTED IN J.2 SKIP TO J.6. OTHERWISE GO TO J.6. IF "FATHER DECEASED CODE" = 1, OR TO J.5.a IF "FATHER DECEASED CODE" = 0]

a. We would like to [verify/obtain] information about your father or male guardian; is he living and in sufficiently good health for us to contact him?
(1) YES. (GO TO J.5.b IF FULL NAME DATA AVAILABLE; GO TO J.5.c IF NOT)
(2) NO. (GO TO J.6)

b. We understand that your father's/male guardian's full name is _____; is that correct?
(1) YES. (GO TO J.5.d)
(2) NO. (CORRECT/COMPLETE EXISTING DATA AND GO TO J.5.d)

c. What is your father's/male guardian's full name?

_____ ___ _____
First Name MI Last Name

d. (IF J.2 IS "MOTHER" OR "FEMALE GUARDIAN" OR IF J.4.a RESPONSE IS YES, ASK THIS QUESTION; OTHERWISE GO TO J.5.e IF FATHER'S ADDRESS EXISTS, OR GO TO J.5.f IF NOT) Is the address for your father/male guardian the same as that you just gave us for your mother/female guardian?
(1) YES. (CATI PROGRAM FILLS IN DATA FROM J.1. (IF J.2 = MOTHER) OR FROM J.4.e or f (IF J.4.a IS "YES"); THEN GO TO J.6)
(2) NO. (IF FATHER'S/MALE GUARDIAN'S ADDRESS/PHONE NUMBER FILLED IN, GO TO J.5.e; IF DATA NOT AVAILABLE, GO TO J.5.f)

e. We show your father's/male guardian's address and telephone number is (FROM PRELOADED DATA). Is this still correct?
(1) YES. (GO TO J.6)
(2) NO. (CORRECT/COMPLETE EXISTING DATA AND THEN GO TO J.6)

f. What is your father's/male guardian's address and telephone number

_____
Address

_____ ___ _____
City State Zip
(___) _____
Telephone Number

6. (IF J.2 IS "SPOUSE", "MOTHER/FEMALE GUARDIAN" OR "FATHER/MALE GUARDIAN" ASK QUESTION 6.a; ELSE, IF (((J.4a = "NO") OR (MOTHER DECEASED INDICATOR = 1)) AND ((J.5.a= "NO") OR (FATHER DECEASED INDICATOR = 1))), THEN ASK 6.a; OTHERWISE SKIP TO J.7)

a. Would you give me the name, address, and telephone number of one other friend or relative who lives at an address different from yours and will probably know where you will be in two years?

_____ ___ _____
First Name MI Last Name

_____
Address

_____ ___ _____
City State Zip

(___) _____
Telephone Number

b. What is (NAME OF CONTACT PERSON)'s relationship to you?
(3) SISTER/BROTHER.
(4) SPOUSE OR FORMER SPOUSE.
(5) OTHER RELATIVE, INCLUDING IN-LAWS.
(6) FRIEND.

[IF CURRENT ADDRESS DATA EXISTS, ASK 7.a; OTHERWISE GO TO 7.b]

7. a. [IF CURRENT ADDRESS AVAILABLE FROM PRELOAD, ASK 7.a, OTHERWISE GO TO 7.b.] Is your current address still (CURRENT ADDRESS FROM RECORD)?
(1) YES. (FILL IN 7.b WITH PRELOAD AND GO TO J.7.c.)
(2) NO.

b. What is your current address? [PROGRAM FILLS IN ANY PRELOAD AVAILABLE]

CURRENT ADDRESS

_____
Address

_____ ___ _____
City State Zip

c. [IF NOT OBVIOUS, ASK--IF OBVIOUS FILL IN YES WITHOUT ASKING] Is the phone number you are speaking from the phone number at your current address?
(1) YES. (CATI PROGRAM FILLS IN J.7.e WITH ACTIVE PHONE NUMBER AND GO TO J.7.f)
(2) NO.

d. Who does this telephone number belong to, (e.g., name, or friend, work, school, parent)?

_____
(fill in response)

e. What is your current home telephone number?
(___)_____ [(999) 999-9997 = NO CURRENT PHONE NUMBER]
(telephone)

f. Do you think it is likely that you will be at this address in two years?
(1) YES.
(2) NO.

g. Is your current address also your permanent address?
(1) YES. (GO TO J.9 AND FILL IN PERMANENT ADDRESS AND PHONE NUMBER [J.8.c] WITH CURRENT ADDRESS AND PHONE NUMBER)
(2) NO. (GO TO J.8)

8. a. Do you have a permanent address and telephone number that is different from the ones you have given us so far?
(1) YES. (GO TO J.8.c)
(2) NO. (GO TO J.8.b)

b. Which of the addresses you have provided is your permanent address?
(1) Original contact person's.
(2) Mother/female guardian.
(3) Father/male guardian.
(4) Current address.
(5) NONE. Have no permanent address.

[GO TO J.9; ALSO, IF ANSWERED 1-4 to J.8.b, CATI PROGRAM FILLS IN PERMANENT ADDRESS AND TELEPHONE NUMBER FROM APPROPRIATE PRIOR RESPONSE (J.1, J.4.e or f, J.5.e or f, or J.7.a or b AND J.7.e]

c. [IF PRELOAD PERMANENT ADDRESS AVAILABLE, ASK 8.c, OTHERWISE GO TO 8.d.] Is your permanent address and phone number still (Permanent address from preload)
(1) YES. (FILL IN 8.d WITH PRELOAD AND GO TO J.9.)
(2) NO.

d. What is your permanent address and telephone number? [PROGRAM FILLS IN ANY PRELOAD AVAILABLE]

_____
Address

_____ ___ _____
City State Zip

(___)_____
Telephone Number

9. a. Let me make sure we have your name spelled correctly. Your full name is (RESPONDENT'S FULL NAME); (INTERVIEWER SHOULD ALSO SPELL NAME). Is that right?
1 = CORRECT. (GO TO J.10.)
2 = INCORRECT. (CONTINUE WITH J.9.b)

b. What is your correct full name?

_____ ___ _____
First Name MI Last Name

10. (IF NPSAS:90 "OTHER NAME" DATA AVAILABLE ASK 10.a; IF BLANK ASK 10.b)

a. You previously told us that you were also known by your friends, relatives, or neighbors as (FILL IN PRELOADED DATA). Is there something else you are called now? [INTERVIEWER DOES NOT READ RESPONSES]

(1) YES (CORRECT/COMPLETE EXISTING DATA AS NEEDED AND GO TO J.11)
(2) NO, SAME NICKNAME OR MAIDEN NAME (GO TO J.11)
(3) NO, NO NICKNAME OR MAIDEN NAME NOW (BLANK EXISTING DATA AND GO TO J.11)

b. Do your friends, neighbors, or relatives know you by any name other than your legal name: for example, maiden name or nickname?
(1) YES. (CONTINUE WITH J.10.c)
(2) NO. (GO TO J.11)

c. What other name are you known by? _____

11. (ASK ONLY IF MARRIED AND NEITHER J.2 NOR J.6.b IS SPOUSE:)
a. What is the name of your spouse?

_____ ___ _____
First Name MI Last Name

12. (IF AVAILABLE PRIOR DATA ASK J.12.a, IF NO DATA GO TO J.12.b.)

a. In 1990, you told us your Social Security number was (SS number). Is that correct?
(1) YES. (GO TO J.13.)
(2) NO. (CORRECT/COMPLETE EXISTING DATA AND GO TO J.13)

b. What is your Social Security number?
[999999997 = NO SOCIAL SECURITY NUMBER]

13. (IF DRIVER'S LICENSE STATE GIVEN PREVIOUSLY AND NOT EQUAL TO 0, ASK 13.a.; OTHERWISE, ASK 13.b.)

a. You told us in 1990 that your driver's license was issued in (FILL IN FROM PRELOADED DATA); Is that still correct?

(1) YES. (GO TO 13.c. IF DRIVER'S LICENSE NUMBER AVAILABLE, OR 13.d. IF NOT)
(2) NO. (CORRECT EXISTING DATA; THEN GO TO 13.c. IF LICENSE NUMBER AVAILABLE OR 13.d. IF NOT)

b. In what state was your drivers license issued? [FC = FOREIGN COUNTRY OR INTERNATIONAL LICENSE. NA = DOES NOT HAVE DRIVERS LICENSE.]

STATE: ____ (IF "NA" OR "FC", GO TO COMPLETION SCREEN; OTHERWISE, GO TO 13.c IF DRIVER'S LICENSE NUMBER AVAILABLE, IF NOT GO TO J.13.d.)

c. You told us in 1990 that your driver's license number was _____; Is that still correct?
(1) YES. (GO TO COMPLETION SCREENS)
(2) NO. (CORRECT/COMPLETE AS NEEDED AND GO TO COMPLETION SCREEN)

d. May I have your drivers license number
. _____

COMPLETION SCREENS

I. Normal Completion (NOT IN Q.C. GROUP AND COMPLETED FULL INTERVIEW)

[USER EXIT TO SELECT A RANDOM NUMBER BETWEEN 0 AND 1 AND DETERMINE IF RESPONDENT IS SELECTED FOR FOLLOWUP INTERVIEW.]

IF (RANDOM ≤ .05) SELECT FOR RELIABILITY REINTERVIEW (GO TO A)

OTHERWISE, NOT SELECTED. (GO TO B).

A. [READ TO RESPONDENT]
You have been randomly selected by our computer for followup interviewing. We would like to call you back in two to three weeks and verify some of your responses. When would be a good time to call?

[INTERVIEWER: FIRST ANSWER--DID THE RESPONDENT REFUSE TO PARTICIPATE IN THE REINTERVIEW?

1 = YES. [GO TO B]
2 = NO.

[IF NOT REFUSED, ENTER DATE AND TIME.]

DATE: _____
TIME: _____

[CONVERT TO EASTERN TIME FOR SUBSEQUENT APPOINTMENT SCHEDULING. IF NOT REFUSED, PROGRAM WRITES OUT ID NUMBER, AND INTERVIEW RESCHEDULE TIME TO SEPARATE FILE.]

B. That completes our survey. Thank you for your assistance. Your participation will help make this survey a success.

II. COMPLETION FOR Q.C. GROUPS OR THOSE DETERMINED TO BE INELIGIBLE OR NOT FTB FROM SECTION A.

[IF DETERMINED ELIGIBLE IN Q.C. GROUPS AUTOMATICALLY RESULT CODE AS 300 AND USE SCREEN C; OTHERWISE, RESULT CODE AS INELIGIBLE OR NON-FTB AND USE SCREEN B IN I]

C. That completes the interview for now, but we may need to get back to you in a few weeks. When would be a good time to call?

DAY OF WEEK: _____

TIME: _____

[NOTE PROGRAM WRITES APPOINTMENT TIME IN COMMENT FIELD FOR CURRENT NUMBER. CASES SHOULD BE RESULT CODED AS 300.]

(TIME STAMP ON COMPLETION SCREEN)

RELIABILITY REINTERVIEW

TABLE OF CONTENTS

A.	Introduction and Validation	C.51
B.	Education Experiences	C.53
C.	Education Financing	C.58
D.	Work Experiences	C.60
E.	Other Education or Training	C.62
F.	Demographic Information	C.63
G.	Family Information	C.63

A. Introduction and Validation

1. May I speak with (respondent's name)?
   a. (STUDENT IS AVAILABLE.) (CONTINUE WITH INTERVIEW.)
   b. (STUDENT NOT AVAILABLE.) (MAKE APPOINTMENT.)
   c. (STUDENT NO LONGER AT THIS PHONE NUMBER.) (GO TO TRACING MODE--TRY TO GET NEW NUMBER.)
   d. (TELEPHONE NUMBER HAS BEEN CHANGED.) (GO TO TRACING MODE--TRY TO GET NEW NUMBER.)
   e. (TELEPHONE HAS BEEN DISCONNECTED.) (DISCONTINUE--GO TO NEXT NUMBER IN TRACING MODE.)
   f. (NO SUCH STUDENT KNOWN TO HOUSEHOLD.) (DISCONTINUE--GO TO NEXT NUMBER IN TRACING MODE.)

Hello, my name is (interviewer's name). I'm calling from Research Triangle Institute for the U.S. Department of Education. Recently, you answered some survey questions as part of the Beginning Postsecondary Study, and we'd like to ask you some of the questions again to check our procedures and our work.

Again, participation is voluntary and information will be kept confidential. This interview will be shorter than the first, and should take no more than 30 minutes.

(If you have any questions about the survey, you can call our Project Staff, Graham Burkheimer, Dale DeWitt, or Kathy Rourke toll free at 1-800-334-8571.

6. (TIME STAMP ON THIS SCREEN) First, lets make sure our records are correct. You were enrolled in (name of NPSAS school/college) at some time between July 1, 1989 and June 30, 1990. Is that right?
   1 = YES
   2 = NO

11.A. While you were enrolled in (name of NPSAS school/college) in 1989-90, were you: (1) YES, (2) NO.
   1. Taking at least one course <u>for credit</u> not counting high school credits or continuing education credits (CEUS)? (IF "YES," BLANK 11.A.2-3 AND GO TO A.12.)
   2. In a program for a degree or formal award not counting high school degree? (IF "YES," BLANK 11.A.3 AND GO TO A.12.)
   3. In a program for a specific occupation? (IF "YES," GO TO A.12.)

11.B. If you were not enrolled for any of these purposes, what was your purpose for being in school?

_____

(NOTE TO INTERVIEWER: IF REASON IS EQUIVALENT TO ONE OF THE OPTIONS IN 11.A, BACK UP AND CHANGE RESPONSE TO APPROPRIATE OPTION OF 11.A).

12. a. (IF NPSAS DATA FILLED IN FOR HIGH SCHOOL COMPLETION STATUS ASK 12.a, OTHERWISE GO TO 12.b) Our records show your high school diploma status to be (READ APPROPRIATE OPTION). Is this correct?
   (1) (YES.) (GO TO 12.c.)
   (2) (NO.) (GO TO 12.b.)

   b. (IF "NO" TO 12.a OR NPSAS RECORD DOES NOT INCLUDE HIGH SCHOOL COMPLETION DATA) What type of high school diploma did you receive? (READ CHOICES AS NECESSARY.)
   (1) REGULAR DIPLOMA FROM A PUBLIC OR PRIVATE HIGH SCHOOL (GO TO 12.c)
   (2) DIPLOMA OR CERTIFICATE THROUGH THE GED OR OTHER EQUIVALENCY TEST. (GO TO 12.c)
   (3) CERTIFICATE OF HIGH SCHOOL COMPLETION. (GO TO 12.c)
   (4) DID NOT COMPLETE HIGH SCHOOL OR HIGH SCHOOL EQUIVALENT. (FILL IN 12.c AND 12.d WITH "97", AND GO TO 12.e.)

c. [IF NPSAS DATA FILLED IN, ASK 12.c, OTHERWISE GO TO 12.d] Our records show that you received your high school diploma or certificate in (fill in date). Is that correct?
1 = YES. (FILL IN A.12.d WITH PRELOAD AND GO TO 12.e)
2 = NO. (GO TO 12.d)

d. In what year did you receive your high school diploma or certificate? 19 __
year

e. [IF PRELOAD DATA OR RESPONSE TO A.12.d IS EQUAL TO OR GREATER THAN 1990 (INCLUDING 97), ASK QUESTION, OTHERWISE GO TO A.13]

Were you still completing high school requirements for the entire time you were enrolled in (Name of NPSAS school/college) between 1 July 1989 and 30 June 1990?

1. YES.
2. NO.

13. Was (Name of NPSAS school/college) the first higher education institution you enrolled in <u>after completing high school</u>?

a. YES. (Go to A.15)
b. NO. (Go to A.14)

14. What was the name of the first higher education institution you enrolled in <u>after completing high school</u>?

_____

15. When did you first enroll in (Name of NPSAS school/college, IF A.13 = "YES"/Name of other college--from A.14, IF A.13 = "No")

__ __ 19 __ __
(MONTH) (YEAR)

[IF DATE GIVEN IS PRIOR TO JULY 1989 OR LATER THAN JUNE 1990, INTERVIEWER MUST VERIFY DATE]

16. (TIME STAMP ON THIS SCREEN)
a. During your first enrollment period at any higher education institution between 1 July 1989 and 30 June 1990, were you classified as a freshman or a first-year student?
(1) (YES.) (FILL IN A.16.b AS 97, AND GO TO A.17.)
(2) (NO.) (GO TO 16.b.)

b. How were you classified? (READ CHOICES AS NECESSARY.)
(1) FRESHMAN (FIRST-YEAR STUDENT).
(2) SOPHOMORE (SECOND-YEAR STUDENT).
(3) JUNIOR (THIRD-YEAR STUDENT).
(4) SENIOR (FOURTH-YEAR STUDENT).
(5) SPECIAL STUDENT (E.G., NONMATRICULATED, NON DEGREE).
(6) GRADUATE STUDENT
(7) OTHER. (SPECIFY.) _____

[IF RESPONSE IS "1", PROGRAM CHANGES RESPONSE TO 16.a TO "1" AND MAKES RESPONSE TO A.16.b "97".]

[NOTE TO INTERVIEWER: IF RESPONSE TO "OTHER" SPECIFY INDICATES FRESHMAN OR FIRST-YEAR STUDENT, GO BACK AND CHANGE RESPONSE TO A.16.b TO FRESHMAN]

B. **Education Experiences** (TIME STAMP ON THIS SCREEN)

The next few questions are about your Educational Experiences since June 1989. We would like to know the names of all postsecondary schools you enrolled in for credit (or to obtain a certificate, license, diploma, or other formal award) not counting correspondence courses. We would also like to know about the terms during which you were enrolled. We are interested in all terms you were enrolled in all schools, even if you did not complete the term.

[READ THIS TO RESPONDENT ONLY IF THEY SEEM TO HAVE TROUBLE WITH WHAT "TERMS" MEANS. "TERMS" means different things at different postsecondary schools and colleges depending on the calendar system used by the school. Some schools are on a quarter system or semester, trimester, 4-4-1, or some other calendar system, to define terms. Schools may also have one or more summer sessions, which are additional terms. Other schools have specific fixed-length courses of instruction that may start at different times during the year and that may or may not be broken up into smaller units. In this case, the entire course of instruction may be a single term.]

1. **First, we would like to ask you about the terms since June 1989 when you went to (NPSAS SCHOOL). We want to identify the starting and ending dates of each of these terms and to find out whether, during each term, you attended the school:**
   - **(1) FULL-TIME.**
   - **(2) AT LEAST HALF-TIME, BUT LESS THAN FULL-TIME.**
   - **(3) LESS THAN HALF-TIME.**

[NOTE TO INTERVIEWERS: TRY TO LET RESPONDENT DETERMINE FULL-TIME, PART-TIME STATUS WITHOUT PROMPTING; IF NEEDED, HOWEVER, FULL-TIME IS TYPICALLY DEFINED AT COLLEGIATE INSTITUTIONS AS ENROLLED FOR 12 OR MORE CREDITS. THUS, HALF-TIME WOULD BE 6 HOURS. AT NON-COLLEGIATE INSTITUTIONS, DETERMINATION OF WHAT CONSTITUTES FULL-TIME IS FREQUENTLY PROBLEMATIC, PROMPT; WITH "WHAT DOES SCHOOL CONSIDER FULL-TIME?" A RULE OF THUMB IN HARD TO DETERMINE CASES IS 20 OR MORE CLASSROOM (CONTACT) HOURS PER WEEK.]

[PROGRAM DISPLAYS A SCREEN WITH THE FOLLOWING FORMAT:]

	Start Month	Start Year	End Month	End Year	FT/HT/PT 1 2 3
1.	_____	19__	_____	19__	__
2.	_____	19__	_____	19__	__
3.	_____	19__	_____	19__	__
4.	_____	19__	_____	19__	__
5.	_____	19__	_____	19__	__
6.	_____	19__	_____	19__	__
7.	_____	19__	_____	19__	__
8.	_____	19__	_____	19__	__
9.	_____	19__	_____	19__	__
10.	_____	19__	_____	19__	__
11.	_____	19__	_____	19__	__

[ALL NPSAS SCHOOL TERM INFORMATION (TERMS ENDING JULY 1989 OR LATER) IS GATHERED ON THIS ONE SCREEN. PRELOADED DATA WILL BE FILLED IN WHICH THE INTERVIEWER CAN VERIFY WITH THE RESPONDENT. EXISTING TERMS CAN BE CHANGED OR DELETED AND THEN NEW TERMS CAN BE ADDED (MAXIMUM OF 11 TERMS). AS EACH TERM IS ADDED, DELETED, OR MODIFIED, THE ENTIRE LIST IS SORTED BY THE START DATES. ALSO, ONCE THIS SCREEN HAS BEEN DISPLAYED, A FLAG IS SET SO THE PROGRAM WILL NOT BE RUN AGAIN.]

2. (TIME STAMP ON THIS SCREEN) Now I want to ask you about any other schools you may have attended. We need the names of those other schools and the starting and ending dates of the terms you attended. As before, we also want to determine if, during the term, you were enrolled

(1) FULL-TIME.
(2) AT LEAST HALF-TIME, BUT LESS THAN FULL-TIME.
(3) LESS THAN HALF-TIME.

[NOTE TO INTERVIEWER BE SURE TO COLLECT THE NAME OF THE COLLEGE OR UNIVERSITY ATTENDED AND NOT THE NAME OF A SCHOOL (E.G., BUSINESS SCHOOL) WITHIN THE COLLEGE OR UNIVERSITY. AS AN EXAMPLE, WE WANT TO KNOW THAT RESPONDENT ATTENDED DUKE UNIVERSITY, NOT THE FUQUA SCHOOL OF BUSINESS, WHICH IS PART OF DUKE UNIVERSITY.]

[NOTE TO INTERVIEWERS: TRY TO LET RESPONDENT DETERMINE FULL-TIME, PART-TIME STATUS WITHOUT PROMPTING; IF NEEDED, HOWEVER, FULL-TIME IS TYPICALLY DEFINED AT COLLEGIATE INSTITUTIONS AS ENROLLED FOR 12 OR MORE CREDITS. THUS, HALF-TIME WOULD BE 6 HOURS. AT NON-COLLEGIATE INSTITUTIONS, DETERMINATION OF WHAT CONSTITUTES FULL-TIME IS FREQUENTLY PROBLEMATIC, PROMPT; WITH "WHAT DOES SCHOOL CONSIDER FULL-TIME?" A RULE OF THUMB IN HARD TO DETERMINE CASES IS 20 OR MORE CLASSROOM (CONTACT) HOURS PER WEEK.]

	School Name	Month	Start Year	Start Month	End Year	End FT/HT/PT	1	2	3
1	_____	__ __	19__ __	__ __	19__ __		__		
2	_____	__ __	19__ __	__ __	19__ __		__		
3	_____	__ __	19__ __	__ __	19__ __		__		
4	_____	__ __	19__ __	__ __	19__ __		__		
5	_____	__ __	19__ __	__ __	19__ __		__		
6	_____	__ __	19__ __	__ __	19__ __		__		
7	_____	__ __	19__ __	__ __	19__ __		__		
8	_____	__ __	19__ __	__ __	19__ __		__		
9	_____	__ __	19__ __	__ __	19__ __		__		
10	_____	__ __	19__ __	__ __	19__ __		__		

[ALL ADDITIONAL SCHOOL TERM INFORMATION IS GATHERED ON THIS ONE SCREEN. PRELOADED DATA (TERMS INCLUDING JULY 1989 OR LATER) WILL BE FILLED IN, WHICH THE INTERVIEWER CAN VERIFY WITH THE RESPONDENT. EXISTING TERMS CAN BE CHANGED OR DELETED AND THEN NEW TERMS CAN BE ADDED (MAXIMUM OF 10 TERMS AND UP TO FOUR DIFFERENT SCHOOLS). AS EACH TERM IS ADDED, CHANGED, OR DELETED, THE ENTIRE LIST IS SORTED BY THE START DATES. ALSO, ONCE THIS SCREEN HAS BEEN DISPLAYED, A FLAG IS SET SO THE PROGRAM WILL NOT BE RUN AGAIN.]

[B.3 IS REPEATED FOR ANY SCHOOL/COLLEGES IDENTIFIED IN B.2 THAT WERE NOT PRELOADED.]

IF NOT ENROLLED DURING OR SINCE FEBRUARY, 1990, GO TO SECTION C.

[REPEAT B.6 FOR FIRST AND LAST TERMS SINCE OR DURING FEBRUARY 1990 ACROSS NPSAS, AND ANY OTHER SCHOOLS ATTENDED.

Now I need to ask you some questions about each of the terms you were enrolled for credit (or working toward a formal award) since February 1990. (THIS IS A TRANSITION SCREEN.)

6. (TIME STAMP ON EACH REPEAT OF THIS SCREEN)

[REPEAT 6A FOR FIRST AND LAST TERMS SINCE FEBRUARY, 1990, ACROSS SCHOOLS.

a. During the term from (starting and ending dates of first enrollment for credit, beginning with the first term that includes or follows February 1990) at (name of first school/college in which enrolled during or after February 1990), how many courses did you take?

_____

(NUMBER OF COURSES)

ASK 6b THROUGH 6k FOR LAST TERM OF ENROLLMENT SINCE FEBRUARY, 1990, ACROSS SCHOOLS.

b. How were you classified by (FILL IN SCHOOL NAME) during this term (FILL IN DATES)? (READ CHOICES FIRST TIME PRESENTED SUBSEQUENTLY, READ AS NECESSARY.)

(1) FIRST-YEAR OR FRESHMAN.
(2) SECOND-YEAR OR SOPHOMORE.
(3) THIRD-YEAR OR JUNIOR.
(4) FOURTH-YEAR OR SENIOR.
(5) SPECIAL STUDENT (E.G., NONMATRICULATED NON-DEGREE).
(6) OTHER

c. Was your course work during this term at (FILL IN NAME OF SCHOOL] leading toward a specific degree or other formal award (license, diploma, or certificate)?

1. YES. (GO TO 6.d)
2. NO. (FILL IN 6.d AS "1" AND GO TO 6.e.)

d. What type of degree or formal award were you working toward?

1. NONE. (PROGRAM CHANGES RESPONSE TO 6.c TO "NO", AND GOES TO 6.e)
2. LESS THAN 2-YEAR VOCATIONAL/OCCUPATIONAL CERTIFICATE OR DIPLOMA. (FILL IN 6.e AS "1" AND GO TO 6.f)
3. LESS THAN 2-YEAR VOCATIONAL/OCCUPATIONAL LICENSE (FILL IN 6.e AS "1" AND GO TO 6.f)
4. 2- OR 3-YEAR VOCATIONAL/OCCUPATIONAL DEGREE OR DIPLOMA (FILL IN 6.e AS "1" AND GO TO 6.f)
5. 2- OR 3-YEAR ASSOCIATES DEGREE (GO TO 6.e)
6. 4- OR 5-YEAR BACHELOR'S DEGREE (FILL IN 6.e AS "2", FILL IN 6.f THROUGH 6.i AS "NA", AND GO TO 6.j)

[NOTE TO INTERVIEWER: WE MUST HAVE A RESPONSE TO THIS QUESTION.]

e. Was your program of study during this term mainly

1. VOCATIONAL/TECHNICAL
2. ACADEMIC

[FILL IN 6.f THROUGH 6.i AS "NA" AND GO TO 6.j.]

[NOTE TO INTERVIEWER: WE MUST HAVE A RESPONSE TO THIS QUESTIONS.]

(B.6.f - B.6.i ARE ASKED IF B.6.d IS "VOCATIONAL").

f. In what? _____

[TO BE CODED ON-LINE INTO TECHNICAL/VOCATIONAL FIELD OF STUDY CODE.]

g. Did you complete all work toward the [certificate or diploma (IF 6.d = 2)/license (IF 6.d = 3)/diploma or degree (IF 6.d = 4)] while at (FILL IN SCHOOL NAME) during this term?

(1) YES.
(2) NO.

h. Did you ever obtain the [certificate or diploma (IF 6.d = 2)/license (IF 6.d = 3)/diploma or degree (IF 6.d = 4)]?

(1) YES. (GO TO 6.l)
(2) NO. (FILL IN 6.l THROUGH 6.k WITH "NA" AND THEN GO TO B.7)

l. When did you receive the [certificate or diploma (IF 6.d = 2)/license (IF 6.d = 3)/diploma or degree (IF 6.d = 4)]

__ __ 19__ __
month year

(B.6.j THROUGH B.6.k ARE ASKED IF B.6.d IS "ASSOCIATES" OR "BACHELORS" DEGREE.)

[FILL IN 6.j THROUGH 6.k AS "NA" AND THEN GO TO B.7]

j. What was your major field of study during this term?

_____

[ON-LINE CODING FOR FIELD OF STUDY BASED ON RESPONSE TO 6.e.]

[IF RESPONSE TO 6.d WAS 1, FILL 6.k AS "NA" AND THEN GO TO B.7]

k. Did you finish all work required for the degree during this term?

(1) YES.
(2) NO.

(IF LAST REPEAT OVER TERMS FOR ALL SCHOOLS, GO TO B.7)

7. (TIME STAMP ON THIS SCREEN) [IF ATTENDED ONLY NPSAS SCHOOL SINCE JULY 1989, THEN DESIGNATE "OTHER PRINCIPAL SCHOOL" AS "97," AND GO TO QUESTION 8.A, OTHERWISE, ASK THESE QUESTIONS TO DETERMINE IF THERE IS ANOTHER PRINCIPAL SCHOOL.]

a. Do you consider (any of the schools, IF MORE THAN 1 ADDITIONAL SCHOOL) (FILL IN NAMES OF ALL ADDITIONAL SCHOOLS) to be a "primary school" in your postsecondary education?

1. YES.
2. NO. (FILL IN OTHER PRINCIPAL SCHOOL AS "97," AND GO TO QUESTION 9.A)

[NOTE TO INTERVIEWER: SCHOOL IS A PRIMARY SCHOOL IF STUDENT ENROLLED IN THE SCHOOL TO OBTAIN A SPECIFIC DEGREE OR FORMAL AWARD FROM THAT SCHOOL. SCHOOL IS NOT A PRIMARY SCHOOL IF STUDENT ENROLLED ONLY FOR PERSONAL ENRICHMENT OR TO GAIN CREDITS TO TRANSFER TO SOME OTHER SCHOOL.]

b. [IF ONLY ONE ADDITIONAL SCHOOL, DESIGNATE OTHER PRINCIPAL SCHOOL AS "02," AND GO TO 9.A; OTHERWISE, ASK QUESTION.]
Of the other schools you have attended, which of the following do you consider the principal (most important) school in your education process?

1. [THIS OPTION, CORRESPONDING TO NPSAS SCHOOL, ALWAYS BLANK]
2. ⎧
3. ⎪ FILL IN OTHER SCHOOLS FROM B.2, AND FILL IN OTHER
⎨ PRINCIPAL SCHOOL WITH NUMBER CHOSEN.
4. ⎪
5. ⎩

[NOTE TO INTERVIEWERS: WE MUST HAVE A RESPONSE TO THIS QUESTION]

[B.9.A IS ASKED ONLY FOR NPSAS SCHOOL]

9.A. I am now going to ask you about your satisfaction with certain school features and services at (name of NPSAS school). For the services I mention, please first indicate whether or not you used the service, and then indicate your satisfaction. (1) Very Dissatisfied, (2) Somewhat Dissatisfied, (3) Somewhat Satisfied, or (4) Very Satisfied [(5) Didn't use (where applicable)].

(d) Special tutoring or remedial instruction
(e) Academic counseling
(h) Career or job counseling

10. (TIME STAMP ON THIS SCREEN.) During the terms ending between July 1, 1989 through June 30, 1990, while you were enrolled in (fill in name(s) of all school(s)/college(s) in which enrolled for terms ending during the time period), please estimate how well you did in all your coursework. (READ CHOICES AS NECESSARY.)

(a) Mostly A's (3.75-4.00 grade point average).
(b) A's and B's (3.25-3.74 grade point average).
(c) Mostly B's (2.75-3.24 grade point average).
(d) B's and C's (2.25-2.74 grade point average).
(e) Mostly C's (1.75-2.24 grade point average).
(f) C's and D's (1.25-1.74 grade point average).
(g) Mostly D's or below (less than 1.25).
(h) Other (e.g., non-graded, pass/fail).

11. [IF NOT ENROLLED DURING OR AFTER JULY 1990, THEN FILL IN B.11 WITH RESPONSE TO B.10 AND GO TO B.12; IF ENROLLED DURING OR AFTER JULY 1990, THEN ASK QUESTION].

During the entire period between July 1989 through the present, while you were enrolled in (FILL IN NAME(S) OF ALL SCHOOL(S)/COLLEGE(S) in which enrolled during the time period), please estimate how well you have done in all your course work. (READ CHOICES AS NECESSARY).

(a) Mostly A's (3.75-4.00 grade point average).
(b) A's and B's (3.25-3.74 grade point average).
(c) Mostly B's (2.75-3.24 grade point average).
(d) B's and C's (2.25-2.74 grade point average).
(e) Mostly C's (1.75-2.24 grade point average).
(f) C's and D's (1.25-1.74 grade point average).
(g) Mostly D's or below (less than 1.25).
(h) Other (e.g., non-graded, pass/fail).

12. (TIME STAMP ON THIS SCREEN.) [ASK THIS QUESTION FOR NPSAS SCHOOL.]
During the period from July 1989 through June 1990, when you were enrolled in (NPSAS school), how frequently did you receive the following assistance from your school(s)? (1) Never, (2) 1-3 Times, (3) 4 or More Times.

(b) Remedial instruction or tutoring to improve basic writing and computational skills. [IF 9.A.d = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(c) Career counseling. [IF AND 9.A.h = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]
(d) Academic counseling [IF 9.A.e = "DIDN'T USE", FILL IN AS "NEVER" AND DO NOT ASK.]

13. [IF ANY OF SERVICES (b,c,d) LISTED IN B.12, WERE RECEIVED (i.e., RESPONSES OF 2 OR 3), ASK THE FOLLOWING FOR EACH SERVICE RECEIVED. [ALLOW RESPONSES FOR B.13.a AND B.13.b FOR EACH OF THE THREE SERVICES. IF SERVICE NOT RECEIVED, FILL IN APPROPRIATE RESPONSE FOR 13.a AND 13.b AS 97]; IF NO SERVICES RECEIVED, FILL IN ALL REPEATS OF 13.a AND 13.b AS 97 AND GO TO B.14.)

a. When you received (fill in name of service received), how was the service most often provided?

(a) In group sessions.
(b) Individually.
(c) Both.

b. Who was the primary provider of (fill in name of service received)? (READ CHOICES AS NECESSARY.)

(a) FINANCIAL AID OFFICE STAFF.
(b) JOB PLACEMENT OFFICE STAFF.
(c) FACULTY.
(d) STUDENTS.
(e) OTHER PROFESSIONALS.
(f) A COMPUTER PROGRAM.
(g) OTHER

C. Education Financing (TIME STAMP ON SECTION C START SCREEN)

[IF NO POSTSECONDARY EDUCATION SINCE FEBRUARY 1990, GO TO SECTION D]

The next few questions are about your education finances and financial aid. Financial aid includes grants, scholarships, student loans, work-study, fellowships, assistantships, and assistance with education from an employer or from the military. It does not include financial assistance from family or friends.

[C.1 THROUGH C.3 ARE REPEATED FOR FIRST AND MOST RECENT TERM AT NPSAS SCHOOL SINCE FEBRUARY, 1990. EACH REPEAT BLOCK SHOULD INCLUDE VARIABLES IDENTIFYING THE SCHOOL AND TERM WITHIN SCHOOL REFERENCED.]

1. (TIME STAMP ON EACH REPEAT OF THIS SCREEN) For (fill in name of NPSAS school/college in which enrolled during or after February 1990), let's talk about the term from (starting and ending dates of first enrollment for credit, beginning with the first term that includes or follows February 1990). Where did you live during this term? (READ CHOICES FIRST TIME THROUGH; SUBSEQUENTLY READ AS NECESSARY)
   1. IN SCHOOL-PROVIDED HOUSING.
   2. IN A SORORITY/FRATERNITY HOUSE.
   3. IN YOUR OWN APARTMENT OR HOUSE (NOT WITH PARENTS BUT PERHAPS WITH FRIENDS OR FAMILY).
   4. IN EMPLOYER-PROVIDED HOUSING (INCLUDING MILITARY).
   5. WITH PARENTS OR GUARDIAN.
   6. WITH RELATIVES, OTHER THAN PARENTS, SPOUSE, OR CHILDREN.
   7. OTHER SITE.

2. Did you receive financial aid for the (fill in starting and ending dates of the term being discussed) term at (name of NPSAS school/college at which enrolled during that term) [FOR FIRST TIME THROUGH ONLY ADD THE FOLLOWING: Please do not include financial assistance from family or friends.]?
   1 = YES. (GO TO C.3.)
   2 = NO. (FILL IN ALL RESPONSES TO C.3 AS "NO", THEN, IF LAST REPEAT OF C.1-C.3 GO TO C.4; OTHERWISE GO BACK TO REPEAT OF C.1)

   [SKIP LOGIC: REPEAT C.1-C.3 FOR FIRST AND MOST RECENT TERM AT NPSAS SCHOOL, SINCE FEBRUARY, 1990. IF ONLY ONE ENROLLMENT TERM AT NPSAS SINCE FEBRUARY, 1990, THEN COLLECT C.1-C.3 JUST FOR FIRST TERM AT NPSAS SINCE FEBRUARY, 1990. IF ENROLLED SINCE FEBRUARY, 1990, BUT NOT AT NPSAS SCHOOL, GO TO C.4. IF NOT ENROLLED SINCE FEBRUARY, 1990, GO TO SECTION D.]

3. For this term, did you receive: (YES OR NO TO EACH. READ CHOICES ON FIRST REPEAT, ON SUBSEQUENT REPEATS, READ AS NECESSARY.)
   1. GRANT(S).
   2. SCHOLARSHIP(S)
   3. STUDENT LOAN(S), OTHER THAN LOAN(S) FROM FAMILY OR FRIENDS OR LOANS TO PARENTS.
   4. TUITION BENEFITS OR OTHER EDUCATION ASSISTANCE FROM EMPLOYER OR UNION.

[IF LAST REPEAT OF C.1 - C.3, CONTINUE WITH C.4; OTHERWISE, GO TO C.1 FOR ADDITIONAL REPEAT]

4. (ASK ONLY IF, ENROLLED FOR ANY TERM IN ANY SCHOOL/COLLEGE THAT ENDED DURING THE 1990-91 SCHOOL YEAR: JULY 1990 - JUNE 1991) (TIME STAMP ON THIS SCREEN, IF ASKED)

   What was the total amount of financial aid received (i.e., awarded and accepted) from all sources, except parents, family, and friends, for terms ending between July 1990 - June 1991? (INFORMATION REQUESTED HERE IS FINANCIAL AID ACTUALLY USED. IF FINANCIAL AID WAS APPROVED BUT STUDENTS DID NOT ACCEPT OR USE THE AID, IT SHOULD NOT BE INCLUDED.) $_____ (999999.97=NONE)

9. For the entire time you were in postsecondary school since February 1990, did you use money for your education or associated living expenses from any of the following sources?

(1) YES, (2) NO.

a. Personal earnings or savings?
b. Spouse earnings or savings?
c. Contributions from parents (not to be repaid)?
d. Loans from parents (to be repaid)?
e. Contribution from other relatives (not parents) or friends (not to be repaid)?
f. Loans from other relatives (to be repaid) or friends?
g. Other personal or family resources?

10. a. So far, about how much in total have you borrowed to help you with postsecondary education?

$_____ [IF NONE, ENTER 99999.97, FILL IN C.10.b THROUGH C.11 AS "NA", AND GO TO C.12]

D. Work Experiences (TIME STAMP ON SECTION D START SCREEN)

The next few questions concern any jobs you may have held (for pay) during or since February of 1990. This includes jobs that you started before that time, but you were still employed in during or after February 1990. If you left a job and sometime later went back to the same job, please count that as two jobs for purposes of these questions. We want you to consider any job you held for pay, including summer jobs, work-study jobs, apprenticeships, and co-ops.

1. Have you held any job for pay at any time (including co-ops, work study, summer jobs, part-time jobs, National Guard, or military reserve), either full-time or part-time, since February 1990?
   a. YES. (GO TO D.2.)
   b. NO. (SECTION D COMPLETE, GO TO SECTION E.)

2. [LIMIT OF 6 JOBS. JOBS SHOULD BE SORTED BY START MONTH/YEAR AFTER EACH ENTRY. ALSO FLAG SHOULD BE SET WHEN 1ST REACHING THIS SCREEN TO AVOID A REPEAT, SHOULD BACKTRACK BE REQUIRED.]

For each job you held since February 1990, please tell me

a. Who was your employer?
b. What month and year did you start this job?
c. What month and year did you end this job?
d. Was the job full-time or part-time?

[NOTE TO INTERVIEWER: PART-TIME IS LESS THAN 35 HOURS PER WEEK.]

[NOTE TO INTERVIEWER: IF STILL IN JOB FILL IN END MONTH AND YEAR AS "97".]

Job	Company	Start Month	Start Year	End Month	End Year	Full-time/ Part-Time	
1	_____	__ __	19__ __	__ __	19__ __	F	P
2	_____	__ __	19__ __	__ __	19__ __	F	P
3	_____	__ __	19__ __	__ __	19__ __	F	P
4	_____	__ __	19__ __	__ __	19__ __	F	P
5	_____	__ __	19__ __	__ __	19__ __	F	P
6	_____	__ __	19__ __	__ __	19__ __	F	P

[PROGRAM TO ALLOW CORRECTION OF COMPANY NAME START AND END DATES AND ALLOW A DELETION CODE FOR JOBS LISTED INAPPROPRIATELY. VERIFY ENTIRE SCREEN WITH RESPONDENT BEFORE EXITING.]

3. (IF EMPLOYED AT ANY TIME PRIOR TO END OF LAST ENROLLMENT PERIOD, ASK THIS QUESTION; OTHERWISE FILL IN D.3 AS "NA" AND GO TO D.8.]

Since you were employed at sometime during the time period that you [have been, IF STILL ENROLLED/were, IF NOT STILL ENROLLED] going to school/college, how did you view your primary role in postsecondary education? (READ ALL CHOICES.)

1 = STUDENT WHO WORKS TO HELP PAY EXPENSES WHILE IN SCHOOL/COLLEGE.
2 = STUDENT WHO WORKS TO EARN EXTRA SPENDING MONEY WHILE IN SCHOOL/COLLEGE.
3 = AN EMPLOYEE WHO ATTENDS SCHOOL/COLLEGE TO GAIN SKILLS NECESSARY FOR JOB ADVANCEMENT.
4 = AN EMPLOYEE WHO ATTENDS SCHOOL TO EXPAND NEW CAREER POSSIBILITIES.
5 = AN EMPLOYEE WHO ATTENDS SCHOOL TO EXPAND PERSONAL KNOWLEDGE/SKILLS.

[NOTE TO INTERVIEWER: FORCE A CHOICE TO D.3. DO NOT ACCEPT "DK" AS AN ANSWER.]

8. [TIME STAMP ON THIS SCREEN FOR EACH APPLICABLE REPEAT (IF ANY)]

[QUESTIONS D.8 THROUGH D.16 ARE ADMINISTERED ONLY FOR PRINCIPAL JOB HELD IN 1991. COMPUTE AN APPLICABILITY INDICATOR FOR EACH JOB. IF RESPONSE TO D.3 WAS 3, 4, OR 5, THEN ALL JOBS LISTED IN FOR 1991 D.2 ARE APPLICABLE. IF RESPONSE WAS NA, 1, OR 2 TO D.3, ONLY JOBS HELD IN 1991 SINCE LAST ENROLLMENT PERIOD ARE APPLICABLE. IF NO APPLICABLE JOBS, GO TO SECTION E. FILL IN ALL NONAPPLICABLE REPEATS WITH "NA" CODES. STORE JOB NUMBER (FOR FIRST APPLICABLE JOB FROM D.2 OR 8.b BELOW). ASK 8.a IF ONLY ONE "APPLICABLE" JOB DURING 1991; ASK 8.b AND c IF TWO OR MORE "APPLICABLE" JOBS DURING 1991.]

a. We would like to ask a few questions about your job with [FILL IN EMPLOYER'S NAME FROM D.2] during 1991. (GO TO D.9)

b. In 1991, you indicated that you worked for more than one employer. Which of these do you consider to be your principal job during that year?

1.
2.
3. [PROGRAM FILLS IN NUMBERS AND
4. { EMPLOYERS FOR 1991
5. [FROM D.2.
6.

[PROGRAM DOES NOT ACCEPT INPUT EXCEPT FOR APPLICABLE JOBS THAT ARE PRESENTED.]

c. We would like to ask you a few questions about this principal job with [FILL IN EMPLOYER FROM D.2] during 1991.

9.

b. Was this job mainly?

1) Manufacturing
2) Wholesale trade
3) Retail trade
4) Other (agriculture, construction, service, government, etc., but not military)
5) Military

11. (TIME STAMP IMMEDIATELY FOLLOWING EACH REPEAT OF THIS SCREEN)

What type of company or organization was this? (READ CHOICES)

1 = PRIVATE FOR-PROFIT.
2 = PRIVATE NOT-FOR-PROFIT OR NON-PROFIT.
3 = LOCAL GOVERNMENT.
4 = STATE GOVERNMENT.
5 = FEDERAL GOVERNMENT.
6 = SELF-EMPLOYED IN YOUR OWN BUSINESS, PROFESSIONAL PRACTICE, OR FARM (NOT INCORPORATED)
7 = SELF-EMPLOYED IN YOUR OWN BUSINESS, PROFESSIONAL PRACTICE OR FARM (INCORPORATED)
8 = OTHER. (SPECIFY) _____

13. During 1991, did you participate in any employer-provided education/training programs while in <u>this</u> job with [FILL IN EMPLOYER NAME]. (Other than what you have mentioned so far)

1 = YES.
2 = NO.

E. <u>Other Education or Training</u>

The next question is about your participation in education programs other than the ones we have already discussed.

(TIME STAMP ON SCREEN STARTING SECTION E)

1. **Other than postsecondary education for credit, education/training provided by your employer, and military training, we would like to find out about your participation in other programs such as registered apprenticeships, government training programs, personal enrichment, or correspondence courses. Since February 1990, have you participated in any of the following? Please report any specific course or program in only one category. (READ CHOICES) (1) YES, (2) NO.**

   a. **Non-credit courses or activities in a regular school or college**
   b. **Correspondence courses**
   c. **Courses given by a community group, labor organization, or church**
   d. **Courses or instruction from a private company or instructor**
   e. **Courses by television, radio, or newspaper**
   f. **Programs or courses sponsored by federal, state, or local government**

F. **Demographic Information (TIME STAMP ON START PAGE FOR SECTION F)**
The next few general questions are about you and your living arrangements.

1. **Where did you live in the first week of February 1992? (READ CHOICES AS NECESSARY)**
   1 = **IN SCHOOL-PROVIDED HOUSING.**
   2 = **IN SORORITY/FRATERNITY HOUSE.**
   3 = **IN OWN APARTMENT OR HOUSE (NOT PARENTS' HOUSE).**
   4 = **IN EMPLOYER-PROVIDED HOUSING**
   5 = **IN PARENTS' OR GUARDIANS' HOUSE OR APARTMENT**
   6 = **IN OTHER RELATIVES' (OTHER THAN PARENTS, SPOUSE, OR CHILDREN) HOUSE OR APARTMENT.**
   7 = **OTHER.**

3. a. **As of the first week of February 1992, what was your marital status?**
   (1) **Single, never married? (Go to F.5.)**
   (2) **Single, but living as married? (Go to F.4.)**
   (3) **Married? (Go to 3.b.)**
   (4) **Separated? (Go to 3.b.)**
   (5) **Divorced? (Go to 3.b.)**
   (6) **Widowed? (Go to 3.b.)**

G. **Family Information (TIME STAMP ON SECTION G START SCREEN)**
The last few questions are about your family and financial planning.

4. a. **What was your personal total gross income for 1991? This includes income from all sources such as wages and salaries, income from business or farm, Social Security, pension, dividends, interest, rental income, and other income. $_____ [999999.97 = NONE]**

[IF 4.a < 999999.97, ASK QUESTION 4.b; OTHERWISE, FILL IN 4.b WITH APPROPRIATE NONRESPONSE INDICATOR, FILL IN 4.c WITH RESPONSE TO 4.a, AND GO TO G.5]

   b. **Was all of your income for 1991 earned (i.e., wages, salaries, commissions, and other payments for your work)?**
   (1) **YES** **(FILL IN G.4.c WITH RESPONSE TO G.4.a)**
   (2) **NO** **(GO TO G.4.c.)**

   c. **How much of your 1991 income, of (FILL IN FROM 4.a.), was earned?**

   $_____

[NOTE: IF 4.c > 4.a, FLASH PROMPT SCREEN INDICATING DISCREPANCY AND INSTRUCTING INTERVIEWER TO RESOLVE IT.]

COMPLETION SCREENS

I. **Normal Completion** (NOT IN Q.C. GROUP AND COMPLETED FULL INTERVIEW)

B. **That completes our survey. Thank you for your assistance. Your participation will help make this survey a success.**

(TIME STAMP ON COMPLETION SCREEN)

Appendix D

BPS:90/92 Remail Cover Letters

BPS *Beginning Postsecondary Students*

A Longitudinal Followup of the National Postsecondary Student Aid Study

[DATE]

[NAME]
[STREET ADDRESS]
[CITY, STATE ZIP]

Dear [NAME]:

Thank you for your inquiry about the Beginning Postsecondary Students Longitudinal Study (BPS) that we are conducting for the Department of Education. Let me reassure you that this study is quite important, since results will be used to determine how student participation in higher education can be better supported and encouraged.

Apparently you failed to receive our earlier correspondence, which I am enclosing with this letter. That correspondence included: (1) a letter from Emerson Elliott, the Acting Commissioner from the National Center for Education Statistics, (2) a prenotification letter sent in January, and (3) a study leaflet. These enclosures will tell you more about the study.

We will set up a callback to you in about 10 days, but please call us toll-free at 1-800-848-4079 and ask for Pat Flanagan to complete you interview sooner.

Thank you again for your inquiry and your continued participation in this study. Your responses are truly needed to make study results accurate and timely.

Sincerely,

Graham J. Burkheimer
Project Director

Enclosures

GJB:sr

[DATE]

[NAME]
[STREET ADDRESS]
[CITY, STATE ZIP]

Dear [NAME]:

We have been trying to reach you concerning the Beginning Postsecondary Students Longitudinal Study (BPS) that we are conducting for the Department of Education. This study is quite important, since results will be used to determine how student participation in higher education can be better supported and encouraged.

Apparently you failed to receive our earlier correspondence, which I am enclosing with this letter. That correspondence included: (1) a letter from Emerson Elliott, the Acting Commissioner from the National Center for Education Statistics, (2) a prenotification letter sent in January, and (3) a study leaflet. These enclosures will tell you more about the study.

We understand that you have no telephone number at which we can reach you, so please call us toll-free at 1-800-848-4079 and ask for Pat Flanagan to complete your interview.

Thank you again for your continued participation in this study. Your responses are truly needed to make study results accurate and timely.

Sincerely,

Graham J. Burkheimer
Project Director

Enclosures

GJB:sr

Appendix E

BPS:90/92 Technical Review Panel Membership

BPS:90/92 Technical Review Panel Membership

Non-Federal Members

Frank Balz
Assistant Executive Director
National Institute of Independent
Colleges and Universities
122 C Street, N.W., Suite 750
Washington, D.C. 20001
(202) 347-7520

David A. Booth
Vice Provost
Williams College
P. O. Box 666
Williamstown, MA 01267
(413) 597-4288

Robert F. Boruch, Ph.D.
University Trustee Chair Professor
Graduate School of Education, Univ. of
Pennsylvania
3700 Walnut Street
Philadelphia, PA 19104-6216
(215) 898-0409

Elinor M. Greenberg, Ed.D.
President/CEO EMG and Associates
6725 South Adams Way
Littleton, CO 80122
(303) 771-3560
(303) 771-2235

Janet S. Hansen, Ph.D.
Director for Policy Analysis
The College Board -- Suite 404
1717 Massachusetts Avenue, N.W.
Washington, D.C. 20036
(202) 332-7134

Enid Jones, Ed.D.
Director of Research and
Executive Director of Minority
Education Commission
American Association of Community and
Junior Colleges
One Dupont Circle, N.W., Suite 410
Washington, D.C. 20036
(202) 728-0200

John B. Lee, Ed.D.
President
JBL Associates
4336 Montgomery Ave.
Bethesda, MD 20814
(301) 654-5154

Charles S. Lenth, Ph.D.
Director
SHEEO/NCES Communications Network
State Higher Education Executive Officers
707 Seventeenth Street, Suite 2700
Denver, CO 80202-3427
(303) 299-3688

Patricia A. Smith
Director, Office of Legislative Analysis
American Council on Education
One Dupont Circle
Washington, D.C. 20036
(202) 939-9355

Jacob O. Stampen, Ph.D.
Professor, Educational Administration
Department of Educational Administration
University of Wisconsin, Madison
1162D Educational Sciences Building
1025 West Johnson Street
Madison, WI 53706
(608) 263-4485

Dawn Geronimo Terkla, Ed.D.
Director, Institutional Research and Planning
Tufts University
28 Sawyer Avenue
Medford, MA 02155
(617) 381-3274

Vincent Tinto, Ph.D.
Professor, Sociology and Education, and
Chair, Cultural Foundations of Education
Syracuse University
259 Huntington Hall
Syracuse, NY 13244-2340
(315) 443-9081

Federal Members

David Bergeron
ED/OPE
Policy Development Office
Regional Office Building-3
400 Maryland Ave., S.W. Room 4060
Washington, D.C. 20202
(202) 708-9069

Dan Chenoc
Desk Officer
Office of Management and Budget
New Executive Office Building
725 17th Street, N.W.
Room 3002
Washington, D.C. 20503
(202) 395-7316

Charles Dickens, Ph.D.
Federal Coordinating Council for Science
Engineering Technology
Office of Science Technology Policy
New Executive Office Building, Suite 5002
725 17th Street, N.W.
Washington, D.C. 20506
(202) 395-5101

Dan Goldenberg
ED/OPBE
Planning and Evaluation Service
Federal Office Building - 6
400 Maryland Ave., S.W. Room 3135
Washington, D.C. 20202
(202) 401-0182

Blanca Rosa Rodriguez
ED/OPE
Campus Based Programs/Program Analysis
ROB 3, Rm 4310
7th & D Street, S.W.
Washington, D.C. 20202
(202) 708-8242

Mark Schwartz, Ph.D.
ED/OVAE/VTED
Program Analysis
Vocational and Educational Program
Analysis Branch
400 Maryland Ave., S.W.
Schwitzer Building, Room 4328
Washington, D.C. 20202
(202) 732-2422

Terri Williams
Office of Management and Budget
726 Jackson Place, N.W., Room 7019
Washington, D.C. 20503
(202) 395-5880

Ex Officio Members

C. Dennis Carroll, Ph.D.
Chief, Longitudinal Studies Branch
ED/NCES
Capitol Place, Room 310F
555 New Jersey Avenue, N.W.
Washington, D.C. 20208-5652
(202) 219-1774

Sal Corrallo
Senior Program Analyst
ED/NCES
Capitol Place, Room 408F
555 New Jersey Ave., N.W.
Washington, D.C. 20208-5650
(202) 219-1913

Sandra Garcia, Ed.D.
Education Statistician
ED/NCES
Capitol Place, Room 310D
555 New Jersey Ave., N.W.
Washington, D.C. 20208-5652
(202) 219-1597

Paula R. Knepper, Ph.D.COTR, Beginning
Postsecondary Student Study
ED/NCES
Capitol Place, Room 310E
555 New Jersey Ave., N.W.
Washington, D.C. 20208-5652
(202) 219-1914

Roslyn Korb, Ed.D.
Senior Statistician
ED/NCES
Capitol Place, Room 311
555 New Jersey Ave., N.W.
Washington, D.C. 20208-5652
(202) 219-1587

Andrew Malizio
COTR, National Postsecondary Student
Aid Study
ED/NCES
Capitol Place, Room 310G
555 New Jersey Ave., N.W.
Washington, D.C. 20208-5652
(202) 219-1448

P. Ron Hall
Associate Commissioner
ED/NCES
Capitol Place, Room 311
555 New Jersey Ave., N.W.
Washington, D.C. 20208-5652
(202) 219-1354

Appendix F

List of Disposition Codes used in the ICS Module

CLEM and Intensive Tracing Codes F.1

CATI Codes F.3

FICS Codes F.5

Intensive Tracing Disposition Codes

00	No Action
01	No Action - Information Available
30	Left 800# for Parent/Other Call Back
31	Left 800# for Student Call Back
32	New Parent/Other Address - No Ph. #
33	New Student Address - No Ph. #
39	Temporary Dead-End
40	Complete: Student/Parent P.F. Return
41	Complete: Review AAI/RTI Information
42	Complete: Based on Post Office Update
43	Complete: Institution- Enrolled Student
44	Complete: Credit Bureau Information
45	Complete: Intensive Directory Assistance - Student Address
46	Complete: Intensive Directory Assistance - Parent/Other
47	Complete: Institution - Not Enrolled Student
48	Complete: TRW Supplied Information
49	Complete: Other Method
50	RTI Phone Used Confirmed
60	Case Reactivated in CATI
80	Final Student Refusal
81	Final Unlocatable
82	Student is not an FTB
83	Hardcore Student Refusal
84	No Intensive Tracing Attempted
85	Student Deceased
86	Student Unavailable
87	Student Has No Phone
88	Final Unpublished Ph. # with Address

PLM Student Disposition Codes

00	No Action
01	Request Mailed
02	Returned by Post Office without Forwarding Address
03	Returned by Post Office with Forwarding Address
10	Remailed with Updated Address
38	Mail Partial Complete - Pending
40	Completed by Mail
41	Mail Partial Complete - Final
60	Temporary Refusal
61	Temporary Unlocatable
80	Final Refusal
81	Final Unlocatable
82	Hardcore Refusal
83	Do Not Know Student Info.
85	Student Deceased
86	Student Unavailable
87	Student Has No Phone
88	Student Not FTB

PLM Parent/Other Disposition Codes

00	No Action
01	Request Mailed
02	Returned by Post Office without Forwarding Address
03	Returned by Post Office with Forwarding Address
10	Remailed with Updated Address
38	Mail Partial Complete - Pending
40	Complete by Mail
41	Mail Partial Complete - Final
60	Temporary Refusal
61	Temporary Unlocatable
80	Final Refusal
81	Final Unlocatable
82	Hardcore Refusal
83	Do Not Know Student Information
84	Parent/Other Deceased
85	Student Deceased
86	Student Unavailable
87	Student Has No Phone
99	No Parent/Other on File

CATI Disposition Codes

Tracing Range

110 Ring No Answer
111 Busy Signal
112 Locator Answering Machine
114 Computer Modem
120 Pending Locator Refusal
121 Pending Language Barrier
122 Callback
124 Pending Other
167 Wrong/Invalid Number
170 Final Refusal
171 Final Language Barrier
173 Seven Consecutive Calls with no Human Contact
174 Final Other
175 Obtained New Tracing Info
176 Contact has no Tracing Info
177 Contact Confirmed Previous Number
192 Student has no Phone (Not Contacted)
194 Not First-Time-Beginning Student (Pre-Contact)
195 Ran out of Time (Not Contacted)
197 Unavailable during Period (Not Contacted)
198 Deceased/Incapacitated/Institutionalized
199 All Intensive Trace Leads Exhausted

Interview Range (after contact with sample member)

210 Ring No Answer
211 Regular Busy Signal
212 Answering Machine
214 Computer Modem
220 Pending Refusal
221 Pending Language Barrier
222 Partial with Callback
224 Pending Other
267 Wrong/Invalid Number
270 Refusal
271 Language Barrier
272 Partial Interview
273 Hostile Refusal
274 Final Other
276 Final Breakoff, No Interview
292 Phone Disconnected or Moved from Phone
293 Not FTB, Determined in CATI
294 Ineligible, Determined in CATI
295 Ran out of Time (After Contact)
297 Unavailable during Period (After First Contact)
298 Deceased/ Incapactitated/Institutionalized (After First Contact)
299 Intensive Tracing Required after Contact
300 Interview Completed

Fully Integrated Control System (FICS) Disposition Codes

CODE	DESCRIPTION	PERCENT
Student Mail-Out Range		
0000	NO REPORT YET	8.3
1000	Student Mailing Not Sent Yet	0.8
1001	Mailed -- Student	78.5
1040	Completed w/ updates/confirmations	12.0
1041	Partial response(no student phone)-FINAL	0.0
1080	Final Refusal by Student	0.1
1081	Final Unlocatable	0.0
1082	Final Hostile Refusal: End Student Case	0.0
1085	Student Deceased/Incap: End Student Case	0.0
1086	Student Unavailable During Survey Period	0.2
1087	Student Has No Phone	0.1
1088	Student Not FTB	0.0
Parent/Other Mail-Out Range		
0000	NO REPORT YET	14.6
2000	No Parent/Other mailing sent	3.2
2001	Mailed -- Parent/Other Source	53.6
2040	Completed with updates/confirmations	22.6
2041	No student phone given (partial)--FINAL	0.0
2080	Final Refusal by Source	0.0
2081	Final Unlocatable	0.0
2082	Final Hostile Refusal by Source	0.0
2083	Student Info Unknown -- Not in Touch	0.1
2084	Source Deceased/Incapacitated	0.0
2085	Student Deceased/Incapacitated: End Case	0.0
2086	Student Unavailable During Survey Period	0.2
2087	Student Has No Phone	0.1
2088	Student Not FTB	0.0
2099	No Parent/Other Exists for Student	5.5
Institution Mail-Out Range		
0000	NO REPORT YET	8.3
4001	Student eligible for institution mailing	0.8
4040	Institution provided enrollment info	51.0
4088	Student Not FTB	0.2
4099	Student not incl. in institution mail	39.7

CODE	DESCRIPTION	PERCENT
Contact Information Delivery Range		
0000	NO REPORT YET	8.3
5000	Directory Info Delivery Range Activated	0.0
5025	Problem case: seek resolution from SSI	0.0
5040	Phone #s sent to RTI for CATI	91.2
5081	No valid phone #s, goto intensive trace	0.0
5085	Student Deceased/Incapacitated: End Case	0.0
5086	Student Unavailable During Survey Period	0.2
5088	Student Not FTB, Not QC Sample: Inactive	0.2
5091	Predicted Non-FTB: Never in CATI	0.0
CATI Tracing Range		
0000	NO REPORT YET	8.8
6000	Activate CATI Trace Range	0.0
6100	CATI Trace Begun	0.0
6125	Temporary dead-end: Intensive trace only	0.0
6130	Case in process:CATI post-intens. trace	0.0
6120	CATI Trace Reactive from Interview Range	0.0
6200	Number Verified: Interview Range Active	82.2
6192	Student Has No Phone	0.4
6194	Final Case Closed in Trace (non-FTB)	0.2
6195	Final Unable to Contact/Ran Out of Time	1.5
6197	Final Unavailable During Survey Period	1.4
6198	Student Deceased/Incapacitated: End Case	0.1
6199	Final Unable to Locate(No good phone #s)	0.9
6190	CATI Trace Exhausted: Intensive Trace	3.8
6191	Predicted Non-FTB while in CATI Trace	0.8
SSI Intensive Tracing Range		
0000	NO REPORT YET	87.9
7000	Begin SSI Intensive Tracing	0.0
7010	Pending: Not Part of Int. Trace Sample	0.0
7015	Former Pending Case: Sampled for Trace	0.0
7025	Problem case: seek resolution from SSI	0.0
7040	Phone #s sent to RTI for CATI(intensive)	5.9
7050	C iginal # from CATI confirmed:(intens.)	1.1
7060	Case reactivated in CATI: call-in	0.1
7080	Student Final Refusal: call-in	0.1
7081	Final unlocatable: no valid phone #s	3.1
7082	Final Case Closed: non-FTB	0.1
7084	Final: no intensive tracing attempted	0.2
7085	Student Deceased/Incapacitated: End Case	0.0
7086	Student Unavailable During Survey Period	0.4
7087	Student Has No Phone	0.3
7088	Student Has Unpublished Phone	0.8

CODE	DESCRIPTION	PERCENT
CATI Interview Range		
0000	NO REPORT YET	14.6
8220	Number Went Bad: Reactivate CATI Trace	3.1
8200	Interview Range Activated: Valid phone #	0.0
8222	Callback scheduled	0.0
8225	Pending Problem Case	0.0
8224	Number Went Bad: Send to SSI	0.0
8274	Final Other	0.0
8267	Final Wrong/Invalid Number	0.0
8270	Final Refusal	3.2
8271	Final Language Barrier	0.0
8273	Final Hostile Refusal	0.0
8276	Final Breakoff (No Data)	0.0
8292	Student Has No Phone	0.0
8293	Case Closed: Interview Range (non-FTB)	21.4
8294	Case Closed: Subject Ineligible	0.7
8295	Final Unable to Contact/Ran Out of Time	0.4
8297	Final Unavailable During Survey Period	0.1
8298	Student Deceased/Incapacitated: End Case	0.0
8272	Final Breakoff (Partial Data)	4.4
8291	Predicted Non-FTB while in CATI Int. Rng	0.6
8300	Interview Complete	51.4
CATI Re-Interview: Reliability		
0000	NO REPORT YET	98.1
9200	Re-Interview Range Activated: Reliabil.	0.0
9222	Callback scheduled	0.0
9225	Pending Problem Case	0.0
9274	Final Other	0.0
9267	Final Wrong/Invalid Number	0.0
9270	Final Refusal	0.3
9272	Final Breakoff (Partial Data)	0.0
9276	Final Breakoff (No Data)	0.0
9292	Student Has No Phone	0.0
9295	Final Unable to Contact/Ran Out of Time	0.0
9297	Final Unavailable During Survey Period	0.0
9298	Student Deceased/Incapacitated: End Case	0.0
9300	Re-Interview Complete	1.6

CODE	DESCRIPTION	PERCENT
Post-Interview Processing Range		
00000	NO REPORT YET	48.6
10000	Activate Post-Interview Range	51.4
10010	CATI-based Editing Completed	0.0
10020	Extraction/Reformatting Completed	0.0
10030	Post-CATI Editing Passed	0.0
10035	Post-CATI Editing Pending Resolution	0.0
10040	Post-CATI Editing Problems Resolved	0.0
10050	Coding Completed	0.0
10060	Record Complete(Except Disclos. Analys.)	0.0

Appendix G

Supplemental Analytic Results

Table G.1 -- Percentage Distributions of Responses to "Per Term" Frequency of Academic Discussions with Faculty Outside of Class, at NPSAS School by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response			
		Never	Once	Several Times	Often
Total	6,054	20.5	9.6	40.9	29.1
1	568	16.7	12.7	39.4	31.2
2	547	24.5	9.0	37.5	29.1
3	534	20.4	7.7	41.2	30.7
4	552	22.1	7.6	40.4	29.9
5	542	19.7	7.2	41.5	31.6
6	581	19.4	8.4	41.3	30.8
7	537	23.1	8.2	39.5	29.2
8	525	14.7	9.9	41.0	34.5
9	558	16.5	9.7	44.4	29.4
10	536	19.7	11.2	43.3	25.8
11 [b]	574	28.2	13.6	39.9	18.3

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 105.8$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Approximately half of the contribution to the χ^2 statistic is attributable to entries in this row.

Table G.2 -- Percentage Distributions of Responses to "Per Term" Frequency of Meeting with Advisor about Academic Plans at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response			
		Never	Once	Several Times	Often
Total	6,054	16.7	19.9	43.5	19.9
1 [b]	574	16.9	29.8	37.1	16.2
2 [b]	568	15.7	26.8	42.1	15.5
3	547	19.6	20.1	41.0	19.4
4	534	16.7	17.2	46.2	19.9
5	552	17.8	17.4	46.2	18.7
6	542	16.8	16.8	46.3	20.1
7	581	16.9	17.4	42.9	22.9
8	537	17.0	16.8	44.7	21.6
9	525	14.7	15.6	47.0	22.7
10	558	12.2	19.4	44.8	23.7
11	536	19.6	20.9	41.0	18.5

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 103.8$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Over three fourths of the contribution to the χ^2 statistic is attributable to entries in these rows.

Table G.3 -- Percentage Distributions of Responses to "Per Term" Frequency of Informal/Social Contacts with Advisor/Faculty Outside of Class/Office, at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response			
		Never	Once	Several Times	Often
Total	6,054	38.0	13.0	32.4	16.6
1 [b]	536	22.4	13.2	39.4	25.0
2	574	36.4	14.8	32.2	16.5
3	568	38.9	13.7	31.3	16.0
4	547	40.0	13.7	29.6	16.6
5	534	37.3	13.5	35.6	13.7
6	552	37.7	14.0	34.6	13.8
7	542	40.8	9.6	32.3	17.3
8	581	40.3	12.6	28.2	18.9
9	537	40.2	10.8	34.1	14.9
10	525	43.2	11.8	29.7	15.2
11	558	40.5	15.4	29.9	14.2

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 107.1$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Well over 60 percent of the contribution to the χ^2 statistic is attributable to entries in this row.

Table G.4 -- Percentage Distributions of Responses to Frequency of Participation in Student Assistance Centers/Programs at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response			
		Never	Once	Several Times	Often
Total	6,054	62.2	12.6	17.0	8.2
1	537	60.3	14.9	18.6	6.2
2 [b]	525	53.3	16.4	19.1	11.2
3 [b]	558	55.9	15.8	17.7	10.6
4	536	62.3	13.4	18.3	6.0
5	574	65.2	9.9	17.1	7.8
6	568	63.7	12.5	15.9	7.9
7	547	66.5	9.9	16.8	6.8
8	534	64.8	12.0	16.3	6.9
9	552	61.1	12.1	16.5	10.3
10	542	63.1	12.2	17.0	7.7
11	581	66.8	10.5	14.5	8.3

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 64.9$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Almost half of the contribution to the χ^2 statistic is attributable to entries in these rows.

Table G.5 -- Percentage Distributions of Responses to Frequency of Participating/ Practicing with Others for Varsity Sports, at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response			
		Never	Once	Several Times	Often
Total	6,054	84.8	2.7	3.6	8.9
1 [b]	547	79.5	4.4	5.1	11.0
2	534	85.8	2.8	1.5	9.9
3	552	84.8	3.3	3.8	8.2
4	542	86.9	0.9	3.1	9.0
5	581	85.7	1.7	4.1	8.4
6	537	85.9	2.8	3.7	7.6
7	525	85.5	3.1	3.1	8.4
8	558	85.7	2.9	4.7	6.8
9	536	83.0	2.8	4.1	10.1
10	574	87.6	1.4	3.5	7.5
11	568	82.2	3.5	2.8	11.4

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 52.2$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Over one-fourth of the contribution to the χ^2 statistic is attributable to entries in this row.

BEST COPY AVAILABLE

Table G.6 -- Percentage Distributions of Responses to Frequency of Participation in Student Assistance Centers/Programs at Principal non-NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response			
		Never	Once	Several Times	Often
Total	1,217	64.0	9.1	16.0	10.9
1	120	61.7	10.8	19.2	8.3
2	108	52.8	10.2	17.6	19.4
3	96	68.7	10.4	11.5	9.4
4	98	48.0	13.3	21.4	17.3
5	109	64.2	11.0	13.8	11.0
6	113	60.2	9.7	17.7	12.4
7	109	66.1	5.5	16.5	11.9
8	101	74.3	8.9	12.9	4.0
9 [b]	123	81.3	4.9	7.3	6.5
10	125	66.4	5.6	20.8	7.2
11	115	58.3	11.3	17.4	13.0

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 58.2$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Almost 30 percent of the contribution to the χ^2 statistic is attributable to entries in this row.

Table G.7 -- Percentage Distributions of Responses to Use of and Satisfaction with (if used), Academic Counseling at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response				
		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied	Didn't Use
Total	5,832	3.9	8.0	35.6	25.4	27.1
1 [b]	353	2.8	11.3	42.8	28.3	14.7
2	375	4.3	6.1	40.8	26.9	21.9
3	393	4.6	10.7	36.9	22.4	25.4
4	373	7.0	7.5	32.4	28.2	24.9
5	373	5.1	7.2	34.1	27.1	26.5
6	372	2.7	8.1	32.5	29.0	27.7
7	370	4.1	7.0	34.9	23.2	30.8
8	1,073	3.5	7.8	35.3	25.8	27.5
9	719	4.2	7.5	33.2	24.6	30.5
10	357	4.2	8.1	32.5	26.3	28.9
11	393	3.6	9.2	35.6	24.2	27.5
12	366	2.5	8.2	35.8	25.7	27.9
13	315	1.6	6.0	39.7	18.4	34.3

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 98.0$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b About a third of the contribution to the χ^2 statistic is attributable to entries in this row.

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Table G.8 -- Percentage Distributions of Responses to Use of, and Satisfaction with (if used), Personal Counseling at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response				
		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied	Didn't Use
Total	5,832	2.4	3.5	22.7	16.0	55.4
1 [b]	366	4.4	5.5	38.2	22.1	29.8
2	315	3.2	6.0	25.7	20.0	45.1
3	353	2.3	1.7	23.8	18.1	54.1
4	375	1.9	3.5	16.8	17.6	60.3
5	393	2.8	4.6	20.9	14.2	57.5
6	373	3.0	4.0	19.8	14.2	59.0
7	373	3.2	2.1	20.4	15.3	59.0
8	372	1.1	3.8	22.3	14.8	58.1
9	370	1.9	3.2	21.4	11.6	61.9
10	1,073	2.1	3.3	22.2	16.8	55.6
11	719	1.9	3.3	22.3	13.2	59.3
12	357	1.7	3.1	18.8	17.9	58.5
13	393	2.8	2.8	24.9	13.7	55.7

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 169.2$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Almost 60 percent of the contribution to the χ^2 statistic is attributable to entries in this row.

Table G.9 -- Percentage Distributions of Responses to Use of, and Satisfaction with (if used), Career or Job Counseling, at NPSAS School, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response				
		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied	Didn't Use
Total	5,832	4.5	6.9	27.6	20.1	40.9
1 [b]	393	4.6	9.4	33.6	20.6	31.8
2 [b]	366	6.0	9.8	30.3	20.8	33.1
3	315	5.7	7.6	27.9	15.6	43.2
4	353	3.1	6.0	31.7	19.5	39.7
5	375	5.3	5.3	23.5	20.0	45.9
6	393	6.6	6.9	30.5	22.1	33.8
7	373	3.5	6.7	25.5	20.4	44.0
8	373	4.8	7.8	27.1	21.4	38.9
9	372	3.0	7.0	24.7	25.0	40.3
10	370	2.4	8.1	26.0	18.9	44.6
11	1,073	4.8	6.0	28.0	20.7	40.5
12	719	4.4	5.4	24.9	20.2	45.1
13 [b]	357	3.6	6.4	26.6	14.6	48.7

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 94.3$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Over 45 percent of the contribution to the χ^2 statistic is attributable to entries in these rows.

Table G.10 -- Percentage Distributions of Responses to "Importance of Previous Work Experience in Job Area" in Life's Work, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response		
		Not Important	Somewhat Important	Very Important
Total	5,974	24.9	45.0	30.1
1 [b]	537	15.8	42.1	42.1
2	554	19.1	45.3	35.6
3	555	22.3	44.9	32.8
4	519	26.2	44.3	29.5
5	574	25.6	42.2	32.2
6	559	30.2	42.4	27.4
7	501	31.7	39.7	28.5
8	579	24.7	47.8	27.5
9	522	26.2	45.6	28.2
10	547	26.1	48.3	25.6
11 [b]	527	26.2	52.0	21.8

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 110.9$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Over 55 percent of the contribution to the χ^2 statistic is attributable to entries in these rows.

Table G.11 -- Percentage Distributions of Responses to Importance of "Freedom to Make Own Decisions in Job," in Life's Work, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response		
		Not Important	Somewhat Important	Very Important
Total	5,974	1.3	30.2	68.6
1 [b]	579	0.9	18.5	80.7
2	522	1.0	29.9	69.2
3	547	0.4	31.8	67.8
4	527	0.8	33.6	65.6
5	537	1.3	31.8	67.8
6	554	1.6	33.6	64.8
7	555	1.8	32.2	66.0
8	519	1.9	30.4	67.6
9	574	1.9	32.5	65.7
10	559	1.2	27.6	71.2
11	501	1.0	30.9	68.1

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 110.9$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Over 55 percent of the contribution to the χ^2 statistic is attributable to entries in these rows.

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Table G.12 -- Percentage Distributions of Responses to Importance of "Meeting and Working with Sociable People," in Choice of Life's Work, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response		
		Not Important	Somewhat Important	Very Important
Total	5,974	3.8	33.1	63.1
1	501	3.8	33.5	62.7
2 [b]	579	3.1	26.1	70.8
3	522	4.8	32.8	62.4
4 [b]	547	3.5	40.8	55.8
5	527	4.2	34.3	61.5
6	537	4.3	33.3	62.4
7	554	3.4	36.6	59.9
8	555	4.3	32.8	62.9
9	519	3.3	32.0	64.7
10	574	2.6	30.3	67.1
11	559	4.1	32.2	63.7

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 41.5$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b Over 70 percent of the contribution to the χ^2 statistic is attributable to entries in these rows.

Table G.13 -- Percentage Distributions of Responses to Importance of "Having a Job Allowing Establishment of Roots" in choice of Life's Work, by Order in Which the Subitem Was Administered

Order of Presentation [a]	Number of Cases	Percent Response		
		Not Important	Somewhat Important	Very Important
Total	5,974	14.9	33.8	51.3
1	519	13.5	33.7	52.8
2 [b]	574	11.1	31.9	57.0
3	559	15.9	28.6	55.5
4	501	18.6	28.7	52.7
5	579	15.4	31.9	52.7
6	522	18.8	33.9	47.3
7	547	13.0	32.0	55.0
8	527	15.2	34.3	50.5
9	537	12.5	39.5	48.0
10 [b]	554	14.6	41.2	44.2
11	555	16.0	35.5	48.5

NOTE: Percentages provided are conditional within each row; these percentages may not add to 100 within row due to rounding error. $\chi^2 = 61.5$.

a Represents the order in which this specific subitem was administered to sample member, given the random start point generated.

b About 40 percent of the contribution to the χ^2 statistic is attributable to entries in these rows.

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Table G.14 -- Elapsed Minutes to Complete Section A (Introduction and Validation) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	3,361	3.68	1.77	2.82	3.43	4.17
	Public	1,377	3.71	1.68	2.83	3.47	4.18
	Independent	1,358	3.42	1.84	2.70	3.23	3.88
	Proprietary	626	4.17	1.69	3.23	3.88	4.73
Less Than 2 Year	Total	498	4.33	1.75	3.30	4.02	4.95
	Public	90	4.36	1.53	3.18	4.22	5.12
	Independent	28	4.46	2.02	3.13	3.81	5.16
	Proprietary	380	4.32	1.78	3.31	3.99	4.93
2-3 Year [a]	Total	864	3.85	1.75	2.95	3.63	4.37
	Public	437	3.96	2.06	2.98	3.65	4.50
	Independent	181	3.47	1.07	2.75	3.35	4.02
	Proprietary	246	3.96	1.51	3.12	3.74	4.48
4 + Year [b]	Total	1,999	3.44	1.73	2.72	3.25	3.93
	Public	850	3.51	1.42	2.75	3.35	4.03
	Independent	1,149	3.39	1.92	2.68	3.22	3.82

NOTE: Statistics are based on the 3,361 cases in which Section A was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

Table G.15 -- Elapsed Minutes to Complete Section B (Education Experiences) Interview by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,691	13.04	5.47	9.32	12.08	15.72
	Public	2,392	13.05	5.28	9.40	12.25	15.86
	Independent	2,311	13.55	5.65	9.87	12.53	16.30
	Proprietary	988	11.85	5.30	8.31	10.81	14.03
Less Than 2 Year	Total	833	11.33	5.05	8.08	10.35	13.63
	Public	167	11.28	4.60	8.05	10.35	13.50
	Independent	47	12.57	8.09	8.58	10.93	14.18
	Proprietary	619	11.25	4.86	8.08	10.22	13.57
2-3 Year [a]	Total	1,350	13.44	6.09	9.23	12.36	16.55
	Public	690	13.22	5.91	8.93	12.04	16.38
	Independent	291	14.71	6.63	10.73	14.28	17.97
	Proprietary	369	12.85	5.84	8.93	11.88	15.03
4 + Year [b]	Total	3,508	13.29	5.23	9.80	12.40	15.94
	Public	1,535	13.16	5.00	9.75	12.47	15.92
	Independent	1,973	13.40	5.40	9.82	12.32	15.98

NOTE: Statistics are based on the 5,691 cases in which Section B was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

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Table G.16 -- Elapsed Minutes to Complete Section C (Education Financing) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,804	3.98	2.32	2.47	3.67	5.13
	Public	2,435	3.76	2.24	2.33	3.38	4.83
	Independent	2,354	4.38	2.29	2.73	4.05	5.58
	Proprietary	1,015	3.56	2.44	2.10	3.47	4.78
Less Than 2 Year	Total	846	3.19	2.37	1.77	3.15	4.25
	Public	167	2.54	1.66	1.58	2.57	3.62
	Independent	51	3.10	3.33	1.35	2.37	3.73
	Proprietary	628	3.37	2.41	1.85	3.37	4.48
2-3 Year [a]	Total	1,398	3.54	2.30	2.12	3.24	4.65
	Public	711	3.20	2.09	1.97	2.80	4.15
	Independent	300	3.92	2.42	2.46	3.45	5.11
	Proprietary	387	3.88	2.46	2.57	3.80	5.20
4 + Year [b]	Total	3,560	4.34	2.24	2.72	3.98	5.50
	Public	1,557	4.16	2.26	2.60	3.73	5.28
	Independent	2,003	4.48	2.22	2.87	4.20	5.65

NOTE: These statistics are based on the 5,804 cases for whom Section C was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

Table G.17 -- Elasped Minutes to Complete Section D (Work Experience) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,625	5.58	3.50	3.33	5.08	7.32
	Public	2,374	5.41	3.37	3.23	4.87	7.12
	Independent	2,287	5.61	3.48	3.37	5.10	7.32
	Proprietary	964	5.94	3.81	3.58	5.58	7.91
Less Than 2 Year	Total	804	5.82	3.87	3.37	5.43	7.76
	Public	165	5.70	4.07	3.43	5.35	7.17
	Independent	48	5.23	3.86	2.53	4.98	6.50
	Proprietary	591	5.90	3.82	3.42	5.55	7.92
2-3 Year [a]	Total	1,359	5.77	3.71	3.38	5.27	7.78
	Public	698	5.58	3.53	3.28	5.00	7.62
	Independent	288	5.91	3.97	3.42	5.41	8.10
	Proprietary	373	6.00	3.81	3.67	5.70	7.88
4 + Year [b]	Total	3,462	5.45	3.32	3.30	4.93	7.10
	Public	1,511	5.29	3.21	3.20	4.70	6.88
	Independent	1,951	5.58	3.40	3.35	5.07	7.27

NOTE: These statistics are based on the 5,625 cases for whom Section D was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

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Table G.18 -- Average Elasped Minutes to Complete Section E (Other Education or Training) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,670	0.98	0.55	0.72	0.87	1.08
	Public	2,383	1.00	0.53	0.73	0.88	1.10
	Independent	2,307	0.99	0.57	0.73	0.88	1.10
	Proprietary	980	0.95	0.53	0.70	0.85	1.03
Less Than 2 Year	Total	814	0.96	0.54	0.68	0.85	1.05
	Public	164	1.02	0.62	0.70	0.88	1.08
	Independent	50	0.91	0.48	0.65	0.82	1.05
	Proprietary	600	0.94	0.53	0.68	0.83	1.03
2-3 Year [a]	Total	1,371	0.99	0.56	0.72	0.87	1.10
	Public	701	1.03	0.57	0.73	0.88	1.15
	Independent	290	0.97	0.53	0.70	0.88	1.08
	Proprietary	380	0.95	0.54	0.72	0.87	1.05
4 + Year [b]	Total	3,485	0.99	0.55	0.73	0.88	1.10
	Public	1,518	0.98	0.50	0.73	0.88	1.08
	Independent	1,967	0.99	0.58	0.73	0.88	1.10

NOTE: These statistics are based on the 5,670 cases for whom Section E was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

Table G.19 -- Elasped Minutes to Complete Section F (Demographic Information) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,680	1.51	1.00	0.92	1.28	1.82
	Public	2,388	1.52	0.94	0.95	1.28	1.82
	Independent	2,311	1.29	0.80	0.82	1.13	1.55
	Proprietary	981	2.00	1.36	1.18	1.72	2.48
Less Than 2 Year	Total	816	2.10	1.23	1.28	1.87	2.62
	Public	163	2.40	1.42	1.47	2.07	2.80
	Independent	50	2.22	1.00	1.52	2.13	2.92
	Proprietary	603	2.02	1.18	1.22	1.78	2.50
2-3 Year [a]	Total	1,372	1.74	1.17	1.05	1.45	2.19
	Public	705	1.73	1.00	1.07	1.45	2.17
	Independent	289	1.48	0.74	0.93	1.32	1.78
	Proprietary	378	1.98	1.60	1.13	1.61	2.47
4 + Year [b]	Total	3,492	1.28	0.77	0.82	1.15	1.52
	Public	1,520	1.33	0.75	0.88	1.18	1.57
	Independent	1,972	1.24	0.79	0.78	1.10	1.50

NOTE: These statistics are based on the 5,680 cases for whom Section F was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

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Table G.20 -- Elasped Minutes to Complete Section G (Family Information) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,651	2.54	1.41	1.67	2.22	3.00
	Public	2,370	2.56	1.32	1.70	2.23	3.05
	Independent	2,304	2.38	1.28	1.62	2.10	2.77
	Proprietary	977	2.87	1.77	1.83	2.48	3.43
Less Than 2 Year	Total	812	2.99	1.80	1.92	2.58	3.53
	Public	164	3.25	1.71	1.98	2.97	3.87
	Independent	47	2.82	1.53	1.75	2.32	3.58
	Proprietary	601	2.93	1.84	1.90	2.52	3.45
2-3 Year [a]	Total	1,359	2.73	1.50	1.77	2.38	3.35
	Public	693	2.79	1.37	1.85	2.45	3.40
	Independent	290	2.58	1.59	1.63	2.20	3.03
	Proprietary	376	2.76	1.66	1.73	2.40	3.42
4 + Year [b]	Total	3,480	2.36	1.21	1.62	2.08	2.77
	Public	1,513	2.38	1.20	1.63	2.10	2.80
	Independent	1,967	2.34	1.22	1.60	2.07	2.72

NOTE: These statistics are based on the 5,651 cases for whom Section G was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

Table G.21 -- Average Elasped Minutes to Complete Section H (Goals, Aspirations, Expectations by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,613	3.55	1.47	2.58	3.28	4.17
	Public	2,349	3.52	1.41	2.53	3.27	4.15
	Independent	2,292	3.73	1.59	2.75	3.50	4.42
	Proprietary	972	3.17	1.21	2.45	2.90	3.57
Less Than 2 Year	Total	806	3.12	1.20	2.43	2.83	3.48
	Public	159	2.93	0.82	2.37	2.75	3.30
	Independent	49	3.27	1.44	2.35	2.67	3.30
	Proprietary	598	3.16	1.26	2.47	2.87	3.57
2-3 Year [a]	Total	1,345	3.27	1.24	2.42	3.00	3.75
	Public	683	3.32	1.24	2.45	3.07	3.85
	Independent	288	3.28	1.36	2.40	2.96	3.78
	Proprietary	374	3.18	1.13	2.42	2.93	3.57
4 + Year [b]	Total	3,462	3.75	1.56	2.77	3.53	4.42
	Public	1,507	3.68	1.50	2.63	3.45	4.32
	Independent	1,955	3.81	1.61	2.85	3.58	4.50

NOTE: These statistics are based on the 5,613 cases for whom Section H was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

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Table G.22 -- Elasped Minutes to Complete Section I (Public Service and Voting Experience) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,620	1.06	0.71	0.57	0.77	1.47
	Public	2,351	1.03	0.74	0.55	0.75	1.38
	Independent	2,295	1.17	0.72	0.60	0.97	1.62
	Proprietary	974	0.86	0.58	0.53	0.65	0.93
Less Than 2 Year	Total	809	0.88	0.61	0.52	0.67	0.97
	Public	160	0.94	0.58	0.54	0.69	1.25
	Independent	49	0.77	0.54	0.52	0.67	0.83
	Proprietary	600	0.87	0.62	0.52	0.65	0.95
2-3 Year [a]	Total	1,347	0.95	0.65	0.53	0.70	1.22
	Public	685	0.98	0.71	0.53	0.72	1.25
	Independent	288	1.01	0.68	0.55	0.72	1.40
	Proprietary	374	0.84	0.50	0.55	0.67	0.93
4 + Year [b]	Total	3,464	1.14	0.75	0.58	0.88	1.59
	Public	1,506	1.06	0.76	0.55	0.77	1.47
	Independent	1,958	1.20	0.73	0.62	1.05	1.67

NOTE: These statistics are based on the 5,620 cases for whom Section I was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

Table G.23 -- Elasped Minutes to Complete Section J (Locator Information) by Level and Control of NPSAS:90 Institution

Level	Control	N	AVG	SD	Q1	Q2	Q3
Total	Total	5,623	4.85	1.91	3.60	4.52	5.67
	Public	2,354	4.81	1.84	3.60	4.48	5.58
	Independent	2,295	4.91	2.00	3.63	4.53	5.75
	Proprietary	974	4.80	1.85	3.55	4.49	5.63
Less Than 2 Year	Total	808	4.80	1.88	3.57	4.48	5.67
	Public	160	4.74	1.70	3.60	4.58	5.60
	Independent	49	4.55	1.98	3.43	4.08	6.17
	Proprietary	599	4.84	1.91	3.57	4.48	5.70
2-3 Year [a]	Total	1,350	4.84	1.97	3.57	4.45	5.67
	Public	688	4.84	1.96	3.58	4.38	5.59
	Independent	287	4.98	2.23	3.55	4.57	6.07
	Proprietary	375	4.74	1.74	3.48	4.53	5.58
4 + Year [b]	Total	3,465	4.86	1.90	3.63	4.55	5.67
	Public	1,506	4.80	1.80	3.60	4.55	5.58
	Independent	1,959	4.90	1.97	3.65	4.55	5.70

NOTE: These statistics are based on the 5,623 cases for whom Section J was completed in one session. Header abbreviations are: AVG=Average; SD=Standard Deviation; Q1=1st Quartile; Q2=2nd Quartile, or median; Q3=3rd Quartile.

a Some proprietary schools included at this level offer programs in excess of 3 years.

b Includes schools offering doctoral, first professional, and other graduate-level programs, as well as those that do not; proprietary schools are not included at this level.

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Table G.24 -- Description of Preload Variables by Class and Source of Data

Class	Source of Data	Specific Variables
Student Specific	Created [a]	New ID; FTB Group; Spanish Speaking Indicator.
	NPSAS:90 Locator - Header File [b]	Name: first, middle, last, maiden or nickname; Social Security Number; Driver's License Information: issuing state, number.
	NPSAS:90 Locator - Address File [b]	Complete Local Address and Phone; Complete Permanent Address and Phone.
	NPSAS:90 SHM Module [c]	Date of Birth: month, day, year; Gender; High School Graduation Information: type of degree, year attained; Race and Ethnicity (7 unique variables); 1990 Citizenship Status; 1989 Dependency Status.
	NPSAS:90 DER Module [c]	Prior Receipt of Student Loan.
School	NPSAS:90 Coordinator File	NPSAS:90 School Name.
	Institutional Characteristics File (IC-89/90, IC-90/91)	NPSAS:90 School Information: level, control, tuition (both in-jurisdiction and out-of-jurisdiction if public); Other School Information (up to 2): name, level, control, tuition (both in-jurisdiction and out-of-jurisdiction if public)
	NPSAS:90 STM Module [c]	
	NPSAS:90 DER Module [c]	Term Beginning and Ending Dates: month, year.
		NPSAS:90 IPEDS IDs; Other Schools IPEDS IDs (up to 2).
Parent	NPSAS:90 Locator - Address File [b]	Unspecified Parent Information: full name, complete address, phone; Mother's Information: full name, complete address, phone; Father's Information: full name, complete address, phone.
	NPSAS:90 SHM Module [c]	Parent Deceased Indicator: mother, father.
Other Contacts	NPSAS:90 Locator - Address File [b]	Contact Person Information: full name, complete address, phone, relationship, parental indicator.
Calling Information [d]	NPSAS:90 Locator - Address File [b]	Phone Number; Full Name Associated with Phone Number.
	Created	Alpha Relationship to Student; Source of Phone Number; Contact Type; Recency Code; Priority Code.

a A shorter, 8-digit ID was constructed from the 13-digit ID provided; students were assigned to a FTB group based on prior data; a spanish speaking indicator was created for Institutions located in Puerto Rico.

b Includes updated information from AAIs pre-locating CATI efforts (i.e. NCOA).

c The NPSAS:90 data modules from which variables were extracted for preload include: SHM - student characteristics data, STM - student term data, and DER - key derived variables.

d Up to five blocks of calling information (subject and/or tracing source) per student were preloaded. These blocks were ordered by "priority" or likelihood of contact for each student based on created pre-CATI locating result codes.

NOTE: All statistics are based only on sample members with known eligibility.

Table G.25 -- Eligibility Rates by Selected Student Classifiers

Student Classification within Identified Variables	Number with Known Status	Percent Eligible	
		Unweighted	Weighted
STRATUM			
Likely FTB	7,462	80.8	76.3
Likely undergraduate, level uncertain	579	70.1	69.2
Likely upperclassman	983	10.4	10.1
Selected first-professional, questionable FTB status	22	18.2	15.1
Selected graduate student, questionable FTB status	31	0.0	0.0
BPSSTRA2			
Likely FTB (Stratum 1)	7,462	80.8	76.3
Likely undergraduate, level uncertain (Stratum 2)	579	70.1	69.2
Expected not freshman (Strata 3, 4, and 6)	1,036	10.2	9.9
TYPAGE			
Younger	267	79.0	80.0
Typical Age	5,545	87.5	86.7
Older	3,265	45.3	44.7
BPSSTRA2 by TYPAGE			
Likely FTB; Younger	107	89.7	85.5
Likely FTB; Typical Age	4,768	95.7	94.0
Likely FTB; Older	2,587	53.0	51.1
Likely undergraduate, level uncertain; Younger	99	93.9	89.5
Likely undergraduate, level uncertain; Typical Age	338	76.9	78.3
Likely undergraduate, level uncertain; Older	142	37.3	39.4
Expected not freshman; Younger	61	36.1	43.5
Expected not freshman; Typical age	439	6.4	5.5
Expected not freshman; Older	536	10.5	10.4
OFCON2			
Public, < 2 years	283	66.1	67.0
Public, 2-3 years	1,212	67.2	65.5
Public, 4 years	2,345	74.5	73.7
Independent, non-profit, < 2 years	98	55.1	54.8
Independent, non-profit, 2-3 years	439	76.5	75.2
Independent, non-profit, 4 years	2,934	77.3	75.7
Independent, for-profit, < 2 years	1,133	62.6	63.5
Independent, for-profit, 2+ years	633	67.6	65.1
CONTROL			
Public	3,840	71.6	68.5
Independent	3,471	76.6	75.0
Proprietary	1,766	64.4	64.7
LEVEL			
< 2 years	1,514	62.8	63.9
2-3 years	2,181	69.2	65.8
4 years, not PhD	2,810	75.3	73.7
4 years, PhD	2,572	76.6	74.6

NOTE: All statistics are based only on sample members with known eligibility.

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Table G.25 -- Eligibility Rates by Selected Student Classifiers (Continued)

Student Classification within Identified Variables	Number with Known Status	Percent Eligible	
		Unweighted	Weighted
ENROLL1			
Currently enrolled in 4-year institution	3,172	82.1	80.1
Not currently enrolled in 4-year institution	2,009	67.8	66.8
Unknown enrollment status in 4-year institution	79	64.6	67.3
Not FTB reported by 4-year institution	19	0.0	0.0
Not selected from 4-year institution	3,798	66.6	65.5
DEPEND			
Dependent	6,015	84.6	82.6
Independent	3,060	47.6	46.6
Missing	2	50.0	95.7
ANYAID			
Yes, aid received	5,544	75.3	74.4
No, aid not received	3,533	67.1	65.1
GENDER			
Male	3,996	72.6	69.6
Female	5,081	71.7	68.4
RACE			
American Indian	65	73.9	77.0
Asian/Pacific Islander	379	67.8	58.5
Black, non-Hispanic	942	63.6	67.1
Hispanic	574	69.7	67.5
White, non-Hispanic	7,117	73.6	69.9
OFERDFA1			
Yes, financial aid important	4,497	74.4	74.0
No, financial aid not important	4,407	70.9	66.5
Missing	173	43.4	48.4
PROGTYP			
Associate's degree	1,488	74.5	71.3
Bachelor's degree	4,187	78.3	75.4
Undergraduate certificate	1,979	67.2	68.4
Other undergraduate award	1,359	60.4	57.0
Master's degree	25	0.0	0.0
Doctoral degree	6	0.0	0.0
First-professional degree	20	20.0	16.4
Other graduate degree	13	7.7	2.8
GPACAT			
3.50 thru 4.00	1,582	64.0	57.2
3.00 thru 3.49	1,465	73.1	69.3
2.50 thru 2.99	1,380	77.8	74.5
2.00 thru 2.49	1,068	75.0	74.1
1.00 thru 1.99	804	79.9	77.6
0.00 thru 0.99	342	75.7	73.4
Legitimate skip	1,820	78.5	75.6
Missing	616	41.6	43.5

NOTE: All statistics are based only on sample members with known eligibility.

Table G.25 -- Eligibility Rates by Selected Student Classifiers (Continued)

Student Classification within Identified Variables	Number with Known Status	Percent Eligible	
		Unweighted	Weighted
ATTNSTAT			
Full-time, full year, 1 school	4,424	82.6	83.5
Full-time, full year, 2+ schools	172	73.8	66.9
Full-time, part year	1,561	70.2	73.0
Part-time, full year, 1 school	985	61.6	65.6
Part-time, full year, 2+ schools	378	59.8	54.3
Part-time, part year	607	49.6	54.1
Missing	225	67.4	68.4
EXEDCOL			
< 1 year trade school	353	74.5	74.2
1 to 2 year trade school	372	69.1	60.2
2 + year trade school	355	65.1	67.7
< 2 year college	142	65.5	55.0
2+ year college	670	66.0	65.8
Bachelor's degree	2,676	73.2	70.7
Master's degree	2,939	73.3	69.0
PhD or Professional degree	1,274	74.2	70.0
Missing	296	67.6	69.5
INCOME			
Dependent; < $10,000	625	84.0	83.5
Dependent; $10,000 to $19,999	626	84.0	82.9
Dependent; $20,000 to $29,999	837	83.5	83.1
Dependent; $30,000 to $39,999	941	82.9	80.9
Dependent; $40,000 to $49,999	865	87.4	84.7
Dependent; $50,000 to $59,999	624	85.6	81.6
Dependent; $60,000 to $69,999	525	84.0	81.5
Dependent; $70,000 to $79,999	265	82.6	78.5
Dependent; $80,000 to $99,999	292	86.6	83.2
Dependent; $100,000+	415	85.1	84.7
Independent; < $5,000	656	59.6	56.8
Independent; $5,000 to $9,999	541	53.4	54.8
Independent; $10,000 to $19,999	784	49.4	50.2
Independent; $20,000 to $29,999	480	40.2	44.2
Independent; $30,000 to $49,999	457	35.2	35.3
Independent; $50,000+	142	24.7	22.7
Missing	2	50.0	95.7

NOTE: All statistics are based only on sample members with known eligibility.

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Table G.26 -- Final Response Status of BPS:90/92 Reliability Reinterviewing

Category/Subcategory	Number	Percent of Total	Percent of Subtotal
Total Selected	229	100.0	NA
Refused when Selected	29	12.7	NA
Subtotal of Reinterview cases	200	87.3	100.0
Final, No data	7	3.1	3.5
Number now bad	3	1.3	1.5
Refusal	2	0.9	1.0
Other [a]	2	0.9	1.0
Final, Partial Data [b]	1	0.4	0.5
Final, Full Data	192	83.8	96.0

a One out of our reach, one unable to contact.
b Number went bad during interview process.

Table G.27 -- Numbers of Calls Made to *Contacted* BPS:90/92 Sample Members by Level and Control of NPSAS:90 School

Level	Control	Locating Calls [a]				Interview Calls [b]				Total Calls [c]			
		N	MAX	AVG	SD	N	MAX	AVG	SD	N	MAX	AVG	SD
Total	Total	9,528	139	7.71	8.25	9,528	184	7.89	13.06	9,528	189	14.61	16.67
	Public	4,000	118	7.71	7.81	4,000	132	7.57	12.23	4,000	150	14.28	15.76
	Independent	3,656	84	7.88	8.49	3,656	184	8.05	13.53	3,656	189	14.93	17.37
	Proprietary	1,872	139	7.39	8.64	1,872	163	8.29	13.80	1,872	163	14.68	17.08
Less Than 2 Year	Total	1,616	139	7.11	8.63	1,616	163	8.51	14.43	1,616	163	14.63	17.89
	Public	300	68	6.27	7.66	300	86	7.39	12.88	300	124	12.66	17.41
	Independent	113	58	6.88	9.32	113	75	9.12	13.71	113	92	15.00	18.69
	Proprietary	1,203	139	7.34	8.79	1,203	163	8.74	14.86	1,203	163	15.08	17.91
2-3 Year	Total	2,398	76	6.84	7.32	2,398	184	7.21	12.01	2,398	189	13.05	15.05
	Public	1,266	60	6.44	6.95	1,266	129	7.04	10.99	1,266	150	12.48	14.13
	Independent	463	45	6.97	6.53	463	184	7.27	14.96	463	189	13.24	16.76
	Proprietary [d]	669	76	7.49	8.38	669	108	7.48	11.61	669	146	13.97	15.46
4 + Year [e]	Total	5,514	118	7.81	8.50	5,514	160	8.01	13.05	5,514	182	14.82	16.93
	Public	2,434	118	7.51	8.21	2,434	132	7.87	12.74	2,434	150	14.38	16.31
	Independent	3,080	84	8.05	8.71	3,080	160	8.12	13.29	3,080	182	15.17	17.40

Note: Results are computed for all contacted sample members, including those excluded after initial contact. Minimum number of calls were consistently 1 for all types of calls and NPSAS:90 institutions; consequently this statistic is not included in the table. Abbreviations used in column headings are: N=number of cases; MAX=maximum; AVG=mean; SD=standard deviation.

a Locating calls include all calls made to try to establish contact with the sample member including the call on which first contact was made.
b Interview calls include all calls made to try to interview the sample member (once located), including the call on which first contact was made.
c Total calls exclude the double count of the call on which first contact was made.
d Proprietary schools offering more than 3-year programs are also included in this category.
e Includes 4 year schools with graduate-level offerings and those without; proprietary schools are not included at this level.

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Appendix H

On-Line Coding Materials

Table H.1.-- List of "Academic" Disciplines Presented to Interviewers for On-Line Field of Study Coding

CODE	CODE AND CATEGORY	EXAMPLES
01	AGRIBUSINESS & AGRICULTURAL PRODUCTION	Ag Econ/Mech/Mgmt;Hortic.
02	AGRICULTURAL SCIENCES	Animal/Food/Plant/Soil Sc
03	RENEWABLE NATURAL RESOURCES	Fish;Wildlife;Forestry
04	ARCHITECTURE & ENVIRONMENTAL DESIGN	Arch;City Plan;ArchDesign
05	AREA & ETHNIC STUDIES	Cultural Studies
06	BUSINESS & MANAGEMENT	Bus.Adm;Bus.Econ;RiskMgmt
07	ACCOUNTING	Accounting;CPA
08	BANKING & FINANCE	Finance
09	BUSINESS & OFFICE	Bus.Support;Office Mgmt
11	MARKETING & DISTRIBUTION	Mkting;Entrepr;Food Mkt
12	COMMUNICATIONS	PubRelat;Advert;Broadcast
13	JOURNALISM	Journalism;Mass Communic.
14	COMMUNICATIONS TECHNOLOGIES	Photo/Video/Commun. Tech.
15	COMPUTER & INFORMATION SCIENCES	Systems Analy;Comp Sci.
16	COMPUTER PROGRAMMING	(distinct from Comp Sci.)
19	EDUCATION	EdAdm;Spec.Ed;Teaching;PE
20	EDUCATION, ADULT & CONTINUING	Adult/Continuing Educ.
21	EDUCATION, ELEMENTARY	Elementary/Primary Educ
22	EDUCATION, JUNIOR HIGH	Jr. High/Middle Sch Educ
23	EDUCATION, PRE-ELEMENTARY	Early Child/Preschool Ed.
24	EDUCATION, SECONDARY	High School Educ
25	ENGINEERING	Aero/Arch/Chem Egring
26	ENGINEERING, CIVIL	Civil Engineering
27	ENGINEERING:ELECTRICAL,ELECTRONICS,COMMUNICATIONS	Elec Egr;Elec/Comput Egr
28	ENGINEERING, MECHANICAL	Mechanical Engineering
29	ENGINEERING & ENGINEERING RELATED TECHNOLOGIES	Egring Technol:not Egring
30	FOREIGN LANGUAGES	Russian;Greek;Chinese
31	GERMAN	
32	FRENCH	
33	SPANISH	
34	ALLIED HEALTH	Therapy;Med/Dent/Vet Asst
36	HEALTH SCIENCES	MD;Vet;HealthAdm;Audiol.
37	NURSING	RN;Nursing Administration
38	HOME ECONOMICS	Textile;FamilyServ;Nutrit
39	VOCATIONAL HOME ECONOMICS	ChildCare;ClothProd;Food
40	LAW	Law;Pre-law Studies
41	ENGLISH (LETTERS)	ComparLit;Speech;TechWrit
42	ENGLISH COMPOSITION	Composition only
43	AMERICAN LITERATURE	American/U.S. Literature
44	ENGLISH LITERATURE	British/English Lit.
45	LIBRARY & ARCHIVAL SCIENCES	Museology;LibrAsst;LibSci
46	LIFE SCIENCES	Bio;Botany;Zoology;Ecol.
47	MATHEMATICS	Pure/Applied Math;Statis.
48	CALCULUS	
49	MILITARY SCIENCES	Military Sci/Technol.
50	PARKS & RECREATION	Outdoors;Rec;WaterResourc
52	PHILOSOPHY & RELIGION	
53	THEOLOGY	Bible;Ministry;Rel. Music
54	PHYSICAL SCIENCES	Astron;Oceanog;Earth Sci.
55	CHEMISTRY	

Table H.1.-- List of "Academic" Disciplines Presented to Interviewers for On-Line Field of Study Coding--Continued

CODE AND CATEGORY		EXAMPLES
56	GEOLOGY	
57	PHYSICS	
59	PSYCHOLOGY	Gen/Clin/Dev/Soc Psych.
60	PROTECTIVE SERVICES	Crim Justice;Fire Protect
61	PUBLIC AFFAIRS	Public/Commun Serv;PubPol
62	SOCIAL WORK	
63	SOCIAL SCIENCES	Archaeol;Demogr;UrbanStu.
64	ANTHROPOLOGY	
65	ECONOMICS	
66	GEOGRAPHY	
67	HISTORY	
68	POLITICAL SCIENCE & GOVERNMENT	
69	SOCIOLOGY	
73	TRANSPORTATION & MATERIAL MOVING	Air Sci;AirTrafCtl;Transp
74	VISUAL & PERFORMING ARTS	Crafts;Drama;Design;Film
75	DANCE	
76	FINE ARTS	Drawing;ArtHist;Sculpture
77	MUSIC	Music Hist/Perf/Theor/Cmp
78	LIBERAL/GENERAL STUDIES (INTERDISCIPLINARY)	Humanities;Interdisc Stu.
94	UNDECIDED/NOT APPLICABLE/UNDECLARED/NONE	Undeclared;DK;Unsure;None
95	UNCODEABLE/UNCODED	None of above choices fit

Note: This list was presented only if the input text was not autocoded; during operations, the list was presented in alphabetical order.

Table H.2.-- List of "Vocational" Disciplines Presented to Interviewers for On-Line Field of Study Coding

CODE	CODE AND CATEGORY	EXAMPLES
01	AGRIBUSINESS & AGRICULTURAL PRODUCTION	Ag Econ/Mech/Mgmt;Hortic.
02	AGRICULTURAL SCIENCES	Animal/Food/Plant/Soil Sc
03	RENEWABLE NATURAL RESOURCES	Fish;Wildlife;Forestry
04	ARCHITECTURE & ENVIRONMENTAL DESIGN	Arch;City Plan;ArchDesign
06	BUSINESS & MANAGEMENT	(not office mgmt: 2 down)
07	ACCOUNTING	(not Accting Tech--below)
09	BUSINESS & OFFICE	Typing;File;Clerk;Bookkp.
10	SECRETARIAL & RELATED PROGRAMS	Secretary;Stenog;CourtRep
11	MARKETING & DISTRIBUTION	Bus. Mkt;Entrepr;Food Mkt
12	COMMUNICATIONS	PubRelat;Advert;Broadcast
14	COMMUNICATIONS TECHNOLOGIES	Photo/Video/Commun. Tech.
15	COMPUTER & INFORMATION SCIENCES	CompSci (not Comp Tech)
16	COMPUTER PROGRAMMING	dBase;BASIC;programming
17	DATA PROCESSING	DP Technology;EDP
18	CONSUMER, PERSONAL & MISCELLANEOUS SERVICES	Entertain;Funeral;Person.
19	EDUCATION	Teacher Asst/Aide
29	ENGINEERING & ENGINEERING RELATED TECHNOLOGIES	Engineer./Comput. Technol
34	ALLIED HEALTH	Therapy;Med/Dent/Vet Asst
35	PRACTICAL NURSING	LPN Training
36	HEALTH SCIENCES	MedRecAdm;HealthAd;MedLab
37	NURSING	RN;Nursing Administration
38	HOME ECONOMICS	Textile;FamilyServ;Nutrit
39	VOCATIONAL HOME ECONOMICS	ChildCare;ClothProd;Food
40	LAW	Paralegal;Legal Asst.
41	LETTERS	English;ComparLit;Speech
49	MILITARY SCIENCES	Military Sci/Technol.
51	FUNCTIONAL SKILLS	Rec/Civic/Leisure Activ.
53	THEOLOGY	Bible;Ministry;Rel. Music
58	SCIENCE TECHNOLOGIES	Biol./Physical Sci Techn.
60	PROTECTIVE SERVICES	Crim Justice;Fire Protect
70	CONSTRUCTION TRADES	Carpent;Mason;Electrician
71	MECHANICS & REPAIRERS	Equip Repair;HVAC;DrillOp
72	PRECISION PRODUCTION	Draft/Print;IndArt;Woodwk
73	TRANSPORTATION & MATERIAL MOVING	Air;Water;Vehicle Oper.
74	VISUAL & PERFORMING ARTS	Crafts;Drama;Design;Film
75	DANCE	
76	FINE ARTS	Drawing;ArtHist;Sculpture
77	MUSIC	Music Hist/Perf/Theor/Cmp
94	UNDECIDED/NOT APPLICABLE/UNDECLARED/NONE	Undeclared;DK;Unsure;None
95	UNCODEABLE/UNCODED	None of above choices fit

Note: This list was presented only if the input text was not autocoded; during operations, the list was presented in alphabetical order.

Table H.3.--List Presented to Interviewers for On-Line Industry Coding

CODE	CODE AND CATEGORY	EXAMPLES
01	Agriculture, Forestry, and Fisheries	Ag. Prod, Vet Serv., Hort
02	Mining	Mining, Extraction
03	Construction	Construction
04	Manufacturing--Durable Goods	Wood,Metal,Machine,Equip
05	Manufacturing--Nondurable Goods	Food,Fabric,Paper,Leather
06	Transportation, Communic., Oth. Public Util.	Rail,Air,Phone,Radio,Elec
07	Wholesale Trade	Durable,Nondurable Prod.
08	Retail Trade	Store,Dealer,Restaur,Sale
09	Finance, Insurance, and Real Estate	Bank,Credit,Insur,Realty
10	Business and Repair Services	Ad,Computer,Serv./Repair
11	Personal Services	Lodging,Laundry,Barber
12	Entertainment and Recreation Services	Theater,Bowling,Video
13	Professional and Related Services	Health,Educ,Org,Legal
14	Public Administration	Gov,Exec,Legis,Justice
15	Military	Active Duty: All Branches
97	Not Applicable	
99	Industry Not Reported	
95	UNCODEABLE	Unable to determine ind.

Note: This list was presented only if the input text was not autocoded.

Table H.4.--List Presented to Interviewers for On-Line Occupation Coding

CODE	CATEGORY	EXAMPLES
01	Clerical-Secretarial	secretary,typist,recept.
02	Clerical-Financial	bookeeper, bank teller
03	Clerical-Other	ticket/trav agent,mail
04	Craftsman/Precision Production/Repair	bake,mech,paint,carpenter
05	Farmer/Farm Manager/Agricult/Fishing	horticult,garden,trapping
06	Homemaker (without other job)	
07	Laborer	apprent,constr wrk,sanit.
08	Manager/Admin.-Sales/Purchasing	sales manager, buyer
09	Manager/Admin.-Government	local, state or federal
10	Manager/Admin.-Retail/Hospitality	store/hotel mgr/asst mgr
11	Manager/Admin.-Manufacturing/Construction	line supervis,qc superv
12	Manager/Admin.-Other	supervisor,mgr,admin,acct
13	Military	career officer, enlisted
14	Skilled Operative: Machinery/Equipment	assemble,drive,machine op
15	Professional-Arts/Entertainment/Media	actor,artist,writer,athl.
16	Professional-Medical(Not Physicians)	RN,therapist,pharmacist
17	Professional-Engineer	mech egr,elec egr,agr egr
18	Professional-Physician:	dentist,vet,optometrist
19	Professional-Legal	lawyer, judge
20	Professional-Other	clergy,prof,soc wrk,scien
21	Proprietor/Owner-Retail/Hospitality	store/restaur/hotel owner
22	Proprietor/Owner-Mfg/Construction	construction contractor
23	Proprietor/Owner-Other	
24	Protective Services	detective,police,fire
25	Sales	sales,ad,insurance,realty
26	School Teacher	elem/sec school teacher
27	Service Occupations	barber,janit,wait,daycare
28	Technical-Computer related	computer p[illegible]mer,technician
29	Technical-Non-computer related	drafting,med/den tech,LPN
30	Not Working	
99	Occupation not reported	
97	Not Applicable	
95	UNCODEABLE	Unable to determine occ.

Note: This list was only presented if the input text was not autocoded.

Table H.5.--On-Line IPEDS Coding Lists for an Example Post Office

POST OFFICE		INSTITUTION
CA	SAN DIEGO	A B INSTITUTE
CA	SAN DIEGO	ACADEMY OF COURT REPORTING INC
CA	SAN DIEGO	AMERICAN BUSINESS COLLEGE
CA	SAN DIEGO	AMERICAN BUSINESS COLLEGE - TECHNICAL DIVISION
CA	SAN DIEGO	ANTHONY SCHOOLS OF SAN DIEGO
CA	SAN DIEGO	ASIAN AMERICAN UNIVERSITY
CA	SAN DIEGO	ASK MR FOSTER TRAVEL ACADEMY
CA	SAN DIEGO	ASSOCIATED BARBER COLLEGE
CA	SAN DIEGO	ASSOCIATED TECHNICAL COLLEGE
CA	SAN DIEGO	BALBOA INSTITUTE OF TRAVEL
CA	SAN DIEGO	BARBIZON SCHOOL OF MODELING
CA	SAN DIEGO	BEREAN BIBLE COLLEGE
CA	SAN DIEGO	BOOKER T CRENSHAW CHRISTIAN COL & SCH MINISTRY INC
CA	SAN DIEGO	CALIFORNIA HAIR DESIGN ACADEMY
CA	SAN DIEGO	CALIFORNIA PACIFIC UNIVERSITY
CA	SAN DIEGO	CALIFORNIA SCHOOL OF PROFESSIONAL PSYC SAN DIEGO
CA	SAN DIEGO	CALIFORNIA SCHOOL OF WALLCOVERING
CA	SAN DIEGO	CALIFORNIA WESTERN SCHOOL OF LAW
CA	SAN DIEGO	CARLSON TRAVEL ACADEMY
CA	SAN DIEGO	CENTER FOR EMPLOYMENT TRAINING
CA	SAN DIEGO	CENTURY 21 REAL ESTATE SCHOOL
CA	SAN DIEGO	CENTURY SCHOOLS
CA	SAN DIEGO	CONCORDE CAREER INSTITUTE
CA	SAN DIEGO	DE LOUX SCHOOL OF COSMETOLOGY
CA	SAN DIEGO	DESIGN INSTITUTE OF SAN DIEGO
CA	SAN DIEGO	EDUCATIONAL CULTURAL COMPLEX
CA	SAN DIEGO	FASHION CAREERS OF CALIFORNIA
CA	SAN DIEGO	FASHION INSTITUTE OF DESIGN AND MERCHANDISING
CA	SAN DIEGO	FLYING J AVIATION
CA	SAN DIEGO	GROSSMONT COLLEGE
CA	SAN DIEGO	INDEPENDENT BARBER COLLEGE
CA	SAN DIEGO	INSTITUTE OF HEALTH SCIENCES
CA	SAN DIEGO	INSTITUTE OF MANAGEMENT SCIENCE
CA	SAN DIEGO	INSTITUTE OF PSYCHOSTRUCTURAL BALANCING
CA	SAN DIEGO	JOHN CASABLANCAS MODELING CENTER
CA	SAN DIEGO	JOHN ROBERT POWERS SCHOOL
CA	SAN DIEGO	KELSEY-JENNEY BUSINESS COLLEGE
CA	SAN DIEGO	LA JOLLA ACADEMY OF ADVERTISING ARTS
CA	SAN DIEGO	LA JOLLA UNIVERSITY
CA	SAN DIEGO	MARIC COLLEGE OF MEDICAL CAREERS
CA	SAN DIEGO	MARINELLO SCHOOL OF BEAUTY
CA	SAN DIEGO	MONTESSORI TRAINING CENTER OF SAN DIEGO
CA	SAN DIEGO	MR CAROLS BARTENDERS & BADD/REACTS TRAINING SCH
CA	SAN DIEGO	MUELLER COLLEGE OF HOLISTIC STUDIES
CA	SAN DIEGO	N A S D S DIVING INSTRUCTORS COLLEGE
CA	SAN DIEGO	NAKUMURA INSTITUTE OF ORIENTAL MEDICINE
CA	SAN DIEGO	NATIONAL UNIVERSITY
CA	SAN DIEGO	NEW SCHOOL OF ARCHITECTURE
CA	SAN DIEGO	NORTH PARK BEAUTY COLLEGE
CA	SAN DIEGO	OCCUPATIONAL TRAINING SERVICES INC

Table H.5.--On-Line IPEDS Coding Lists for an Example Post Office--Continued

POST OFFICE		INSTITUTION
CA	SAN DIEGO	PACIFIC COAST TECHNICAL INSTITUTE
CA	SAN DIEGO	PLATT COL, SAN DIEGO, CA BR
CA	SAN DIEGO	POINT LOMA NAZARENE COLLEGE
CA	SAN DIEGO	PROFESSIONAL SCHOOL OF PSYCHOLOGICAL STUDIES
CA	SAN DIEGO	S S T TRAVEL SCHOOL
CA	SAN DIEGO	SAN DIEGO BIBLE COLLEGE
CA	SAN DIEGO	SAN DIEGO CITY COLLEGE
CA	SAN DIEGO	SAN DIEGO COLLEGE OF MEDICAL & DENTAL CAREERS
CA	SAN DIEGO	SAN DIEGO COUNTY TECHNICAL TRAINING CENTER
CA	SAN DIEGO	SAN DIEGO MESA COLLEGE
CA	SAN DIEGO	SAN DIEGO MIRAMAR COLLEGE
CA	SAN DIEGO	SAN DIEGO STATE UNIVERSITY
CA	SAN DIEGO	SAN DIEGO URBAN LEAGUE DATA PROCESSING TRAINING CE
CA	SAN DIEGO	SAWYER COLLEGE OF BUSINESS
CA	SAN DIEGO	SOUTHERN CALIFORNIA BIBLE COLLEGE
CA	SAN DIEGO	SOUTHWEST COLLEGE INC
CA	SAN DIEGO	TRAVEL UNIVERSITY INTERNATIONAL
CA	SAN DIEGO	UNITED TRAINING INSTITUTE INC
CA	SAN DIEGO	UNIVERSITY OF CALIFORNIA-SAN DIEGO
*CA	SAN DIEGO	UNIVERSITY OF SAN DIEGO
CA	SAN DIEGO	US INTERNATIONAL UNIVERSITY
CA	SAN DIEGO	WESTERN SIERRA LAW SCHOOL
CA	SAN DIEGO	WESTERN STATE UNIVERSITY COLLEGE OF LAW SAN DIEGO
CA	SAN DIEGO	WILLIAM LYON UNIVERSITY

* While the University of San Diego is actually located in La Jolla, it was cross-listed in San Diego since a number of field test respondents identified it as such. Other cross-listings were added to the dictionary for schools presenting particular problems (e.g. Notre Dame is located in South Bend, Indiana but the post office listed in IPEDS is Notre Dame, Indiana).

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